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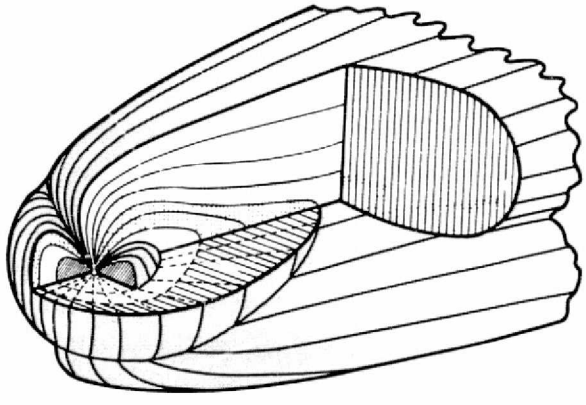
IMS/Satellite Situation Center Report

Daily Summary for IMS High-Altitude Satellites, Days 182-365 1977



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AUGUST 1977

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IMS/Satellite Situation Center Report

Daily Summary for

IMS High-Altitude Satellites, Days 182-365 1977

Report No. 10

August 1977

National Space Science Data Center/
World Data Center A for Rockets and Satellites
National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771

The Satellite Situation Center (SSC) and the IMS Central Information Exchange (IMSCIE) Office support the activities of the IMS. In order that their services may be recognized by the agencies funding the IMS in the various countries and by the scientists participating in the IMS program, it would be appreciated if the data presented in this and other SSC publications were acknowledged in those papers where they have been used or proved useful in carrying out the IMS scientific programs.

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This document makes use of the international metric units according to the Système International d'Unités (SI).

I. INTRODUCTION

The purpose of this report is to provide a concise and easily used description of the orbital positions of a number of high-altitude satellites capable of making magnetospheric measurements in the second half of 1977 as part of the International Magnetospheric Study (IMS). This report is a complement to the IMS/Satellite Situation Center Report No. 7: Daily Summary for IMS High-Altitude Satellites, Days 1-181 1977. The following high-altitude satellites are considered in this report: Vela 5A, Vela 5B, Vela 6A, Vela 6B, Solrad 11A, Solrad 11B, Hawkeye 1, Prognoz 5, IMP-H, IMP-J, and ISEE-A/-B. The orbit elements used for generating the satellite ephemeris are shown in Table 1. The ISEE-A/-B elements are for the latest planned orbit as obtained from the Project Office. Complete presentations of the positions of these satellites for the second half of 1977 are given in this report. In addition, the IMS/SSC Special Periods for the second half of 1977 are given, and detailed plots illustrating these periods are presented.

In IMS/SSC Report No. 7, the possibilities of poor data coverage on the Vela satellites and of discontinued data acquisition on the Hawkeye 1 satellite were noted. However, Hawkeye 1 data acquisition during IMS/SSC Special Periods is assured during 1977.* Therefore, this satellite is included in this report. In addition, the Vela satellites continue to return useful data in the magnetotail and in the region of the magnetopause, and the satellites are included in this report in those regions. As a result of the deteriorating situation on the two Solrad satellites, they are included to a less significant extent than in IMS/SSC Report No. 7. The solar wind spectrometer continues to operate on Solrad 11B, and this satellite should provide useful data in the interplanetary medium. For Solrad 11A, this experiment is inoperable; however, the proton-alpha telescope and the omnidirectional proton experiments continue to operate, and this satellite should provide useful data in the magnetosheath and magnetopause regions. Note that the Moon is not included in this report, because the Apollo 15 ALSEP suprathermal ion detector experiment was turned off March 12, 1977. Details of experiment packages and operating status may be obtained from IMS/Satellite Situation Center Report No. 9: IMS Directory of Spacecraft and Experiment Scientific Contacts. Periodic updates to that report are issued.

II. TABULAR AND BAR CHART INFORMATION

Time-ordered tables of magnetopause crossings, bow shock crossings, neutral sheet passes, midlatitude magnetotail passes, high-latitude magnetotail passes, and Hawkeye 1 northern cusp passes are given in Tables 2 through 7, respectively. The various regions used in these tables are defined in Table 8. Of the satellites considered, Hawkeye 1 is the only satellite to enter the northern cusp region.

*Note added in press: After July 31, 1977, no data will be obtained from Hawkeye 1 because of a lack of financial support.

Bar charts covering the second half of 1977 are given in Appendix A. Because there are either 9 or 10 satellites, each day is covered on three consecutive pages. The 24-h time scale on each chart is 24 cm in length, corresponding to the IMS standard scale of 1 cm/h. These charts provide the crude three-dimensional positions of the satellites in various magnetospheric regions. A three-letter mnemonic is used to represent the various regions of space:

INP - Interplanetary Medium (I in Table 8)
SHE - Magnetosheath (DS and NS in Table 8)
SPH - Magnetosphere (DM and NM in Table 8)
TAL - Magnetotail (HT, MT, and Sh in Table 8)

The subregions are given by providing the solar ecliptic local time on the bottom line of a satellite box, while the second line gives the solar ecliptic latitude. There is one exception: for Hawkeye 1, the magnetic local time and geomagnetic latitude are employed. For both the interplanetary and magnetotail regions, the distance of the satellite from the bow shock and neutral sheet, respectively, is given in Earth radii. The notation $\bar{r}$ denotes a negative distance, corresponding to the satellite in the interplanetary medium or south of the neutral sheet.

A vertical line is drawn in each satellite box when the satellite crosses from one region to the next. The boundary crossings S (bow shock) and P (magnetopause) appear at the crossing time above the satellite box. Cusp entry and exit are represented by Ç and C̲, respectively and also appear above the satellite box. If the interval within the cusp is less than 1 h, only the letter C appears above the box.

III. IMS/SSC SPECIAL PERIODS FOR THE SECOND HALF OF 1977

The bar charts given in this report have been examined to determine Special Periods based upon certain conjunctions of the high-altitude satellites. Thirteen such periods (Nos. 10-22) have been identified and include 8 opportunities for multiple magnetosheath observations, 16 opportunities for multiple boundary observations, and 12 opportunities for multiple magnetotail observations, 4 of which are coincident with the Hawkeye 1 satellite in the cusp region. These IMS/SSC Special Periods are summarized in Tables 9 and 10. The nomenclature used in Table 9 for the various regions is defined in Table 8. The time intervals of each Special Period are shown in Table 10. As in earlier Special Periods, the SSC has added 6 h at the beginning and the end of the intervals to allow for inaccuracies in the orbit predictions and for notions of the various boundaries from the nominal undisturbed positions assumed in this study.

The important aspects of the 13 Special Periods are illustrated in detail in Appendix B. Various types of projections are used. The first plot in this Appendix shows the satellite distance with respect to the neutral sheet, which is assumed to be planar, parallel to the geocentric solar magnetospheric (GSM) X-Y plane, and hinged at 10 Earth radii on the

geomagnetic equator in the anti-solar direction. Negative distances correspond to the satellite lying south of the neutral sheet. The second plot is the companion to the first and shows the X and Y GSM coordinates of the satellite. The third plot in Appendix B is a projection in the solar magnetic coordinate system and is used to show the relative positions of the satellite and the dayside access or cusp region. The fourth plot is a projection in the geocentric solar ecliptic (GSE) X-Y plane designed to show the relative positions of the satellite and the magnetopause and bow shock. The position vector of the satellite is rotated about the X-axis into the ecliptic plane. As a result of the slight asymmetry of the boundaries about the X-axis, this type of rotation can be inaccurate for high-latitude boundary encounters. However, the relative positions of the satellite and the boundaries are shown accurately in the fifth plot. Distance to the bow shock is denoted by an S and distance to the magnetopause by a P. Positive distances are on the concave side of the surfaces. The ecliptic latitude and longitude of the encounters may be determined from plots of the type of the sixth plot shown in Appendix B.

It is hoped that the IMS community will use the bar charts given in this report to determine additional Special Periods. It should be noted, however, that the IMP-H and IMP-J satellites are placed on a higher tracking priority during the same Special Periods.

Additional Special Periods determined by the SSC, involving the GEOS (ESA) satellite in conjunction with AE-C, ATS 6, ISIS 2, TIP 1, S3-2, S3-3, and certain ground stations, are given in the monthly IMS Newsletter.

Table 1. IMS/SSC Orbital Parameter Summary

SATELLITE NAME	Hawkeye 1	Prognoz 5	ISEE-A-B
EPOCH (YY-MM-DD-HH-MM)	77-04-25-00-00	77-03-01-00-00	77-10-13-15-30
PERIOD (m)	3077.52148	5723.47266	3560.47852
ECCENTRICITY	.862466	.924584	.913787
INCLINATION (deg)	85.612	65.967	28.766
R.A. OF ASCENDING NODE (deg)	280.590	156.039	60.636
ARGUMENT OF PERIGEE (deg)	238.036	288.781	309.014
MEAN ANOMALY (deg)	112.879	48.735	0.052
SEMI-MAJOR AXIS (km)	70085.688	105990.844	77238.531
PERIGEE HEIGHT (km)	3261.00	1615.19	280.76
APOGEE HEIGHT (km)	124154.03	197610.13	141440.00
LOCAL TIME OF APOGEE (h)	4.83	8.28	11.46
LATITUDE OF PERIGEE (deg)	-57.768	-59.846	-21.957
LONGITUDE DRIFT RATE (degs per day)			
SUN-SATELLITE DISTANCE (AU)			
EARTH-SUN-SATELLITE ANGLE (degs)			
COROTATION DELAY TIME (days)			
LONGITUDE OF SATELLITE (deg)			

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Table 1. IMS/SSC Orbital Parameter Summary (continued)

SATELLITE NAME	Vela 5A	Vela 5B	Vela 6A	Vela 6B
EPOCH (YY-MM-DD-HH-MM)	76-05-31-23-59	76-05-31-23-59	76-05-31-23-59	76-05-31-23-59
PERIOD (m)	6692.29883	6696.81250	6689.99289	6702.30078
ECCENTRICITY	.030185	.034400	.007591	.010025
INCLINATION (deg)	43.895	43.897	41.782	41.721
R.A. OF ASCENDING NODE (deg)	104.683	104.742	108.385	108.021
ARGUMENT OF PERIGEE (deg)	76.919	73.427	63.509	77.325
MEAN ANOMALY (deg)	212.484	28.820	30.227	131.701
SEMI-MAJOR AXIS (km)	117637.000	117689.906	117609.625	117754.188
PERIGEE HEIGHT (km)	107707.97	107263.22	110338.75	110195.59
APOGEE HEIGHT (km)	114809.75	115360.31	112124.22	112556.50
LOCAL TIME OF APOGEE (h)	6.81	6.65	6.14	7.33
LATITUDE OF PERIGEE (deg)	42.481	41.649	36.608	40.488
LONGITUDE DRIFT RATE (degs per day)				
SUN-SATELLITE DISTANCE (AU)				
EARTH-SUN-SATELLITE ANGLE (degs)				
COROTATION DELAY TIME (days)				
LONGITUDE OF SATELLITE (deg)				

Table 1. IMS/SSC Orbital Parameter Summary (concluded)

SATELLITE NAME	IMP-H	IMP-J	Solrad 11A	Solrad 11B
EPOCH (YY-MM-DD-HH-MM)	77-03-13-00-00	77-03-14-00-00	77-03-03-11-01	77-02-13-19-01
PERIOD (m)	17301.64844	17487.23438	7339.83594	7341.12109
ECCENTRICITY	.145336	.175844	.002606	.002697
INCLINATION (deg)	35.825	28.058	26.612	26.621
R.A. OF ASCENDING NODE (deg)	44.096	101.338	11.407	11.722
ARGUMENT OF PERIGEE (deg)	147.629	277.275	127.381	112.319
MEAN ANOMALY (deg)	180.844	118.293	161.105	186.901
SEMI-MAJOR AXIS (km)	221591.000	223172.813	125107.875	125122.469
PERIGEE HEIGHT (km)	183007.56	177551.00	118403.69	118406.88
APOGEE HEIGHT (km)	247418.13	256038.31	119055.78	119081.81
LOCAL TIME OF APOGEE (h)	12.84	1.61	10.59	10.42
LATITUDE OF PERIGEE (deg)	18.263	-27.812	20.851	24.489
LONGITUDE DRIFT RATE (degs per day)				
SUN-SATELLITE DISTANCE (AU)				
EARTH-SUN-SATELLITE ANGLE (degs)				
COROTATION DELAY TIME (days)				
LONGITUDE OF SATELLITE (deg)				

Table 2. Magnetopause Crossings, Days 182-365 1977

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Vela 5A	182/1.75	Vela 6A	187/6.06	Vela 6A	191/22.46	Vela 5B	196/20.47
Hawkeye 1	182/7.88	IMP-J	187/9.22	IMP-H	192/0.42	Hawkeye 1	197/6.21
Vela 6A	182/13.60	Vela 5B	187/11.38	Hawkeye 1	192/0.43	Vela 6B	197/7.59
Vela 5B	182/18.86	Hawkeye 1	187/17.66	Vela 5B	192/3.88	Prognoz 5	197/19.14
Prognoz 5	182/19.32	Vela 6B	187/22.34	Vela 6B	192/14.99	Hawkeye 1	198/10.49
Solrad 11B	183/0.52	Solrad 11B	188/4.61	Hawkeye 1	192/23.84	Solrad 11B	198/12.67
Vela 6B	183/5.60	Solrad 11A	188/15.88	Solrad 11B	193/8.63	Vela 6A	198/13.86
Hawkeye 1	183/10.85	Hawkeye 1	188/17.46	Solrad 11A	193/19.96	Prognoz 5	198/15.73
Solrad 11A	183/11.93	Vela 6A	189/4.71	Prognoz 5	193/20.19	Vela 5A	198/20.02
Hawkeye 1	184/11.08	Vela 5A	189/11.16	Vela 6A	193/21.29	Vela 5B	198/20.98
Vela 6A	184/12.01	Vela 5B	189/11.50	Vela 5A	194/3.53	Solrad 11A	198/24.00
Vela 5B	184/18.66	IMP-H	189/13.50	Hawkeye 1	194/3.80	Hawkeye 1	199/9.39
Vela 5A	184/18.78	IMP-J	189/19.16	Vela 5B	194/4.23	IMP-J	199/13.65
Solrad 11A	185/12.58	Hawkeye 1	189/21.05	Prognoz 5	194/16.58	Vela 6B	200/1.14
Hawkeye 1	185/14.26	Prognoz 5	189/21.25	Hawkeye 1	195/3.02	Hawkeye 1	200/13.82
Prognoz 5	185/22.33	Vela 6B	190/16.11	Vela 6B	195/8.59	Vela 5A	200/20.23
Vela 6B	185/23.66	Solrad 11A	190/16.58	Solrad 11A	195/20.55	Solrad 11A	201/0.59
Solrad 11B	186/3.93	Prognoz 5	190/17.45	Vela 5A	196/3.63	Vela 6A	201/7.41
Hawkeye 1	186/14.27	Hawkeye 1	190/20.66	Hawkeye 1	196/7.16	Hawkeye 1	201/12.56
Prognoz 5	186/18.37	Solrad 11B	191/8.04	Solrad 11B	196/12.16	Vela 5B	201/13.02
Vela 5A	186/18.44	Vela 5A	191/11.06	Vela 6A	196/14.95	Solrad 11B	201/16.22

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Prognoz 5	201/18.10	Prognoz 5	206/14.02	IMP-J	211/18.42	Solrad 11A	216/12.68
IMP-J	201/22.84	Vela 6B	206/16.72	Solrad 11B	212/0.34	Solrad 11B	217/4.35
Vela 6B	202/0.23	Solrad 11B	206/20.25	Hawkeye 1	212/4.32	Vela 6A	217/7.91
IMP-H	202/6.16	Hawkeye 1	206/23.75	Vela 6A	212/15.37	IMP-H	217/11.60
Prognoz 5	202/14.89	Hawkeye 1	207/22.04	Vela 5A	212/21.39	Vela 5A	217/13.89
Hawkeye 1	202/17.14	Vela 6A	207/23.87	Vela 5B	212/22.94	Prognoz 5	217/14.30
Vela 6A	203/6.42	Vela 5A	208/4.93	Hawkeye 1	213/9.53	Vela 5B	217/15.64
Vela 5A	203/12.40	Vela 5B	208/6.30	Prognoz 5	213/15.17	Hawkeye 1	217/15.97
Vela 5B	203/13.66	Solrad 11B	208/20.91	IMP-J	214/0.90	Prognoz 5	218/11.43
Hawkeye 1	203/15.73	Hawkeye 1	209/3.03	Solrad 11B	214/0.92	Hawkeye 1	218/13.74
Solrad 11B	203/16.82	Solrad 11A	209/7.99	Vela 6B	214/2.75	Vela 6B	218/19.28
Solrad 11A	204/3.95	Vela 6B	209/10.20	Hawkeye 1	214/7.45	Solrad 11B	219/5.00
IMP-H	204/16.19	Prognoz 5	209/16.09	Solrad 11A	214/11.92	Vela 5A	219/14.20
Vela 6B	204/17.59	Hawkeye 1	210/1.17	Prognoz 5	214/12.27	Solrad 11A	219/15.95
Hawkeye 1	204/20.45	Vela 5A	210/5.21	Vela 5A	214/21.70	Hawkeye 1	219/19.16
Vela 5A	205/12.69	Prognoz 5	210/13.13	IMP-H	215/4.30	Vela 6A	220/1.46
Prognoz 5	205/17.09	Vela 6A	210/16.42	Vela 6A	215/8.96	Vela 5B	220/7.57
Hawkeye 1	205/18.89	Vela 5B	210/22.25	Hawkeye 1	215/12.75	Hawkeye 1	220/16.89
Vela 6A	205/23.88	Hawkeye 1	211/6.28	Vela 5B	215/14.90	Vela 6B	220/18.36
Solrad 11A	206/4.70	Solrad 11A	211/8.64	Vela 6B	216/1.84	Prognoz 5	221/13.46
Vela 5B	206/5.60	Vela 6B	211/9.27	Hawkeye 1	216/10.59	Solrad 11A	221/16.67

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Hawkeye 1	221/22.34	Vela 6A	226/16.89	Vela 6A	231/9.42	IMP-J	236/12.82
Vela 6A	222/0.39	Solrad 11A	226/20.67	Vela 5A	231/15.81	Hawkeye 1	236/20.05
Vela 5A	222/6.45	Vela 5A	226/23.15	Vela 5B	231/17.65	Solrad 11A	237/4.87
Vela 5B	222/8.28	Vela 5B	227/0.98	Solrad 11A	232/0.78	Prognoz 5	237/10.29
Solrad 11B	222/8.49	Hawkeye 1	227/2.35	Hawkeye 1	232/13.93	Vela 6B	237/14.23
Prognoz 5	222/10.64	Solrad 11B	227/12.64	Solrad 11B	232/16.67	Hawkeye 1	237/18.08
Hawkeye 1	222/20.04	Vela 6B	228/4.65	Vela 6B	232/21.35	Solrad 11B	237/20.78
Vela 6B	223/11.93	IMP-H	228/4.68	Prognoz 5	233/11.04	Prognoz 5	238/7.48
Hawkeye 1	224/1.50	Hawkeye 1	228/7.75	Hawkeye 1	233/11.78	Vela 5A	238/8.26
IMP-J	224/2.60	Vela 5A	228/23.22	Vela 5A	233/15.67	IMP-J	238/15.60
Vela 5A	224/6.67	Hawkeye 1	229/5.50	Vela 6A	234/3.51	Vela 6A	238/20.37
Solrad 11B	224/9.03	Vela 6A	229/10.80	Prognoz 5	234/8.30	Hawkeye 1	238/23.08
Vela 6A	224/18.14	Prognoz 5	229/11.82	Vela 5B	234/10.16	Vela 5B	239/3.22
Solrad 11A	224/20.04	Solrad 11B	229/13.12	Hawkeye 1	234/17.00	Vela 6B	239/12.55
Hawkeye 1	224/23.19	Vela 5B	229/17.21	Solrad 11B	234/17.33	Hawkeye 1	239/21.24
Vela 5B	225/0.40	Solrad 11A	230/0.09	Vela 6B	234/19.94	Solrad 11B	239/21.35
Vela 6B	225/10.87	Vela 6B	230/3.46	Solrad 11A	235/4.07	Solrad 11A	240/8.14
Prognoz 5	225/12.64	IMP-H	230/8.87	Hawkeye 1	235/14.93	Vela 6A	240/18.46
Hawkeye 1	226/4.63	Prognoz 5	230/9.10	Vela 6A	236/1.89	IMP-H	240/23.74
IMP-J	226/7.49	Hawkeye 1	230/10.85	Vela 5A	236/8.67	Vela 5A	241/1.58
Prognoz 5	226/9.88	Hawkeye 1	231/8.64	Vela 5B	236/10.35	Hawkeye 1	241/2.09

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Vela 5B	241/3.11	Prognoz 5	246/5.92	IMP-J	251/3.75	Hawkeye 1	255/22.82
Prognoz 5	241/9.61	Hawkeye 1	246/6.74	Hawkeye 1	251/16.94	Vela 6B	256/10.58
Hawkeye 1	242/0.39	Vela 6B	247/0.12	Vela 6B	251/17.28	Hawkeye 1	256/22.77
Prognoz 5	242/6.67	Hawkeye 1	247/11.03	Vela 5A	252/10.28	Vela 5A	257/3.17
Vela 6B	242/7.14	Solrad 11A	247/12.89	Hawkeye 1	252/16.35	Prognoz 5	257/7.21
Solrad 11A	242/8.84	Vela 5A	247/17.56	Solrad 11A	252/16.89	Vela 6A	257/16.68
Solrad 11B	243/0.83	Solrad 11B	248/4.91	Vela 6A	252/23.44	Solrad 11A	257/20.92
Vela 5A	243/0.88	Vela 6A	248/6.25	Vela 5B	253/7.25	Vela 5B	258/0.88
IMP-H	243/2.92	Hawkeye 1	248/9.93	Prognoz 5	253/7.81	Hawkeye 1	258/1.75
Hawkeye 1	243/5.09	Vela 5B	248/13.67	Solrad 11B	253/9.07	Prognoz 5	258/3.76
Vela 6A	243/13.28	Vela 6B	248/21.89	IMP-H	253/13.08	Vela 6B	258/7.49
Vela 5B	243/20.38	IMP-J	249/4.72	Vela 6B	253/14.63	Solrad 11B	258/13.23
Hawkeye 1	244/3.55	Prognoz 5	249/8.40	Hawkeye 1	253/19.89	Hawkeye 1	259/1.99
Vela 6B	244/5.21	Hawkeye 1	249/13.99	Prognoz 5	254/4.49	Vela 6A	259/13.32
Solrad 11B	245/1.42	Vela 6A	250/3.77	Hawkeye 1	254/19.56	Vela 5A	259/22.71
Hawkeye 1	245/8.06	Prognoz 5	250/5.20	Vela 6A	254/20.52	Vela 5B	259/22.95
Prognoz 5	245/9.00	Solrad 11B	250/5.50	Vela 5A	255/5.22	Hawkeye 1	260/4.68
Vela 6A	245/11.12	Vela 5A	250/11.79	Vela 5B	255/5.88	Solrad 11B	260/13.71
Solrad 11A	245/12.10	Vela 5B	250/12.85	Solrad 11B	255/9.54	Solrad 11A	261/0.32
Vela 5A	245/18.60	Hawkeye 1	250/13.14	IMP-H	255/17.04	Vela 6B	261/3.94
Vela 5B	245/19.97	Solrad 11A	250/16.17	Solrad 11A	255/20.29	Hawkeye 1	261/5.21

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Prognoz 5	261/6.63	Prognoz 5	266/2.25	Vela 5A	271/6.55	Solrad 11A	276/12.44
Vela 5A	261/20.07	Solrad 11A	266/4.38	Solrad 11A	271/8.42	IMP-J	276/13.66
Prognoz 5	262/3.00	Vela 5A	266/13.23	Hawkeye 1	271/21.44	Vela 6A	276/15.39
IMP-J	262/3.92	Hawkeye 1	266/13.46	Vela 6A	271/21.49	Vela 5B	277/2.01
Hawkeye 1	262/7.61	Vela 6A	267/3.71	Vela 5B	272/7.41	Vela 6B	277/4.05
Vela 6A	262/10.09	Vela 5B	267/13.00	Vela 6B	272/10.67	Hawkeye 1	277/4.21
Vela 5B	262/18.82	Hawkeye 1	267/14.92	Hawkeye 1	272/22.28	Prognoz 5	277/4.71
Vela 6B	263/0.36	Vela 6B	267/17.42	Prognoz 5	273/5.13	Prognoz 5	278/0.15
Solrad 11A	263/1.11	Solrad 11A	268/5.13	Solrad 11A	273/9.14	Hawkeye 1	278/7.31
Hawkeye 1	263/8.44	IMP-H	268/7.70	Vela 6A	273/16.52	Vela 6A	278/9.89
Solrad 11B	263/17.26	Hawkeye 1	268/16.39	Hawkeye 1	274/0.72	IMP-H	278/11.94
IMP-J	263/21.75	Solrad 11B	268/21.41	Prognoz 5	274/0.81	Solrad 11A	278/13.20
Vela 6A	264/6.22	Vela 6A	268/23.27	Solrad 11B	274/1.45	Vela 5B	278/21.17
Hawkeye 1	264/10.53	Prognoz 5	269/5.57	Vela 5B	274/3.32	Vela 5A	278/23.22
Vela 5B	264/16.21	Vela 5B	269/9.64	Vela 5A	274/4.80	Solrad 11B	279/5.57
Vela 5A	264/16.53	Vela 5A	269/10.57	IMP-J	274/23.89	Hawkeye 1	279/7.18
Prognoz 5	265/6.07	Hawkeye 1	269/18.17	Hawkeye 1	275/1.24	Vela 6B	280/3.39
Hawkeye 1	265/11.68	Prognoz 5	270/1.50	Vela 6B	275/9.28	Hawkeye 1	280/10.60
Solrad 11B	265/17.88	Vela 6B	270/15.35	Vela 5A	276/0.09	Vela 5A	280/17.81
Vela 6B	265/21.57	Hawkeye 1	270/19.33	Solrad 11B	276/2.00	IMP-H	281/0.92
IMP-H	265/23.60	Solrad 11B	270/21.90	Hawkeye 1	276/4.00	Prognoz 5	281/4.26

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Solrad 11B	281/6.09	Solrad 11B	286/10.14	Vela 5A	290/5.81	ISEE-A-B	294/5.50
Vela 6A	281/9.53	Vela 6B	286/15.37	Vela 6A	290/21.90	Vela 6B	294/10.10
Hawkeye 1	281/10.17	Vela 5B	286/15.53	IMP-H	291/3.10	Solrad 11B	294/18.01
Solrad 11A	281/16.54	Hawkeye 1	286/20.49	Hawkeye 1	291/3.10	Vela 5A	295/0.11
Vela 5B	281/20.81	Solrad 11A	286/20.73	ISEE-A-B	291/7.39	Hawkeye 1	295/9.73
Vela 6B	281/21.61	ISEE-A-B	286/21.18	Vela 6B	291/9.28	Vela 6A	295/16.10
Prognoz 5	281/23.50	IMP-J	287/10.72	Vela 5B	291/10.30	Vela 6B	296/3.39
Hawkeye 1	282/13.91	Hawkeye 1	287/19.17	Solrad 11B	291/14.41	Vela 5B	296/4.79
Vela 6A	283/3.46	Vela 6A	287/21.18	ISEE-A-B	291/18.72	ISEE-A-B	296/4.85
Hawkeye 1	283/13.17	Vela 5B	288/9.47	Solrad 11A	292/0.73	Hawkeye 1	296/7.30
Vela 5B	283/15.28	Vela 5A	288/12.21	Hawkeye 1	292/1.21	ISEE-A-B	296/16.29
Solrad 11A	283/17.20	ISEE-A-B	288/20.68	Vela 6A	292/15.16	Solrad 11B	296/18.51
Vela 5A	283/17.75	Solrad 11A	288/21.31	Prognoz 5	293/2.83	Prognoz 5	297/2.40
Solrad 11B	284/9.77	IMP-J	288/23.03	Vela 5B	293/3.98	Solrad 11A	297/4.84
Hawkeye 1	284/17.20	Hawkeye 1	288/23.79	Hawkeye 1	293/6.42	Vela 6A	297/9.23
Vela 6B	284/21.62	Prognoz 5	289/3.30	Vela 5A	293/6.64	Hawkeye 1	297/13.04
Prognoz 5	285/3.78	ISEE-A-B	289/7.97	ISEE-A-B	293/18.11	Prognoz 5	297/20.78
Vela 5A	285/11.76	Solrad 11B	289/13.90	IMP-H	293/20.78	Vela 5B	297/22.39
Hawkeye 1	285/16.17	Vela 6B	289/15.85	Prognoz 5	293/21.44	Vela 5A	298/0.88
Prognoz 5	285/22.83	Prognoz 5	289/22.13	Solrad 11A	294/1.46	Hawkeye 1	298/10.36
Vela 6A	286/3.67	Hawkeye 1	289/22.19	Hawkeye 1	294/4.25	ISEE-A-B	298/15.57

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
ISEE-A-B	299/3.09	Vela 5B	302/16.79	Hawkeye 1	306/22.73	ISEE-A-B	311/8.93
Vela 6B	299/4.32	Vela 5A	302/18.91	Solrad 11B	307/2.69	Vela 6A	311/15.78
Solrad 11A	299/5.46	ISEE-A-B	303/12.93	Vela 5B	307/11.08	IMP-J	312/0.44
Hawkeye 1	299/16.36	IMP-H	303/17.90	Vela 5A	307/12.67	Vela 5B	312/5.21
Vela 5A	299/18.34	Vela 6B	303/22.37	Solrad 11A	307/12.93	Vela 5A	312/6.12
IMP-J	299/19.75	Hawkeye 1	303/23.04	Hawkeye 1	308/5.73	Solrad 11B	312/6.77
Solrad 11B	299/22.14	ISEE-A-B	304/0.65	ISEE-A-B	308/10.21	Hawkeye 1	312/12.39
Vela 6A	300/10.25	Solrad 11A	304/9.50	Vela 6B	308/16.22	Solrad 11A	312/17.10
Hawkeye 1	300/13.43	Vela 5A	304/12.55	ISEE-A-B	308/22.15	Prognoz 5	313/0.76
Vela 6B	300/21.58	Hawkeye 1	304/19.63	Prognoz 5	309/1.22	ISEE-A-B	313/7.60
Vela 5B	300/23.12	Prognoz 5	305/1.64	Hawkeye 1	309/1.85	Hawkeye 1	313/8.10
Prognoz 5	301/2.02	Solrad 11B	305/2.21	Vela 5A	309/6.63	Vela 6B	313/9.82
ISEE-A-B	301/2.27	Vela 6A	305/4.22	Solrad 11A	309/13.56	IMP-J	313/15.60
IMP-J	301/8.64	Vela 6B	305/15.83	Prognoz 5	309/19.07	Prognoz 5	313/18.50
ISEE-A-B	301/13.88	Vela 5B	305/17.17	Vela 6A	309/22.00	ISEE-A-B	313/19.78
Hawkeye 1	301/19.70	Prognoz 5	305/19.62	Solrad 11B	310/6.36	Vela 5A	314/0.50
Prognoz 5	301/20.17	ISEE-A-B	305/23.57	Hawkeye 1	310/9.07	Vela 6A	314/15.49
Solrad 11B	301/22.57	Hawkeye 1	306/2.39	Vela 6B	310/10.02	Hawkeye 1	314/15.72
Vela 6A	302/3.42	ISEE-A-B	306/11.40	Vela 5B	310/10.92	Solrad 11A	314/17.55
Solrad 11A	302/8.88	IMP-H	306/14.03	ISEE-A-B	310/20.89	Vela 6B	315/4.04
Hawkeye 1	302/16.53	Vela 6A	306/21.63	Hawkeye 1	311/4.97	Vela 5B	315/4.35

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Solrad 11B	315/10.65	Hawkeye 1	319/17.51	Hawkeye 1	323/23.82	Vela 5A	328/4.96
Hawkeye 1	315/11.23	Solrad 11A	319/21.76	Vela 5A	324/2.10	Solrad 11A	328/5.43
ISEE-A-B	315/18.24	Vela 5B	319/21.80	IMP-J	324/2.10	Hawkeye 1	328/6.17
ISEE-A-B	316/6.62	Vela 6B	319/22.00	Vela 5B	324/14.89	ISEE-A-B	328/12.73
IMP-H	316/8.99	Solrad 11B	320/14.72	Vela 6B	324/15.77	Vela 6A	328/19.18
Vela 6A	316/9.73	ISEE-A-B	320/15.45	Prognoz 5	324/23.32	Prognoz 5	328/22.87
Hawkeye 1	316/19.05	Prognoz 5	320/23.78	Solrad 11A	325/1.85	IMP-H	329/2.64
Vela 5B	316/22.98	Hawkeye 1	321/1.75	Hawkeye 1	325/8.41	Vela 5B	329/7.93
Vela 5A	316/23.36	Vela 6A	321/3.74	ISEE-A-B	325/12.74	Vela 6B	329/9.34
Prognoz 5	317/0.27	ISEE-A-B	321/4.17	Prognoz 5	325/16.76	Hawkeye 1	329/15.09
Solrad 11B	317/10.90	Vela 5A	321/16.48	Solrad 11B	325/18.89	Prognoz 5	329/16.28
Hawkeye 1	317/14.36	Vela 5B	321/16.85	Vela 6A	325/21.41	Solrad 11A	330/5.85
Prognoz 5	317/17.89	Prognoz 5	321/17.31	IMP-J	325/21.92	Hawkeye 1	330/9.34
Solrad 11A	317/21.26	Hawkeye 1	321/20.66	ISEE-A-B	326/1.85	ISEE-A-B	330/9.96
Vela 6B	318/3.31	Solrad 11B	322/15.14	Hawkeye 1	326/2.99	Vela 6A	330/14.95
ISEE-A-B	318/4.83	Vela 6B	322/20.52	Vela 5A	326/9.40	Solrad 11B	330/23.00
ISEE-A-B	318/17.39	Solrad 11A	323/1.32	Vela 5B	326/10.30	ISEE-A-B	330/23.60
Vela 5A	318/18.11	ISEE-A-B	323/2.09	Hawkeye 1	327/11.75	Vela 5A	331/2.28
Hawkeye 1	318/22.39	Hawkeye 1	323/5.07	Vela 6B	327/13.64	Vela 5B	331/3.60
IMP-H	319/5.21	Vela 5A	323/11.71	Solrad 11B	327/19.22	Hawkeye 1	331/18.45
Vela 6A	319/8.96	ISEE-A-B	323/15.00	ISEE-A-B	327/23.37	IMP-H	331/21.21

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Vela 6B	332/6.67	Solrad 11B	336/3.10	Vela 5B	340/13.92	Vela 6A	344/18.67
Hawkeye 1	332/12.54	IMP-J	336/10.06	Solrad 11A	340/13.98	Prognoz 5	344/20.82
ISEE-A-B	332/20.54	Hawkeye 1	336/18.95	ISEE-A-B	340/19.15	ISEE-A-B	345/1.42
Vela 5A	332/22.14	Prognoz 5	336/21.95	Prognoz 5	340/21.42	Vela 5A	345/4.21
Prognoz 5	332/22.43	Vela 6B	336/23.54	Hawkeye 1	341/1.37	Vela 5B	345/6.78
Solrad 11B	332/23.31	Vela 5A	337/15.18	Solrad 11B	341/7.31	Hawkeye 1	345/7.78
Solrad 11A	333/9.48	Prognoz 5	337/15.40	Prognoz 5	341/14.92	Prognoz 5	345/14.40
ISEE-A-B	333/10.46	ISEE-A-B	337/17.68	Vela 6B	341/16.26	ISEE-A-B	345/17.10
Vela 6A	333/12.14	Solrad 11B	338/3.45	IMP-H	341/21.98	Solrad 11A	345/18.01
Prognoz 5	333/15.84	Hawkeye 1	338/4.51	Vela 5A	342/8.09	Vela 6B	346/9.04
Hawkeye 1	333/21.81	Vela 6A	338/4.95	Hawkeye 1	342/11.18	Solrad 11B	346/11.59
Vela 5B	334/0.89	ISEE-A-B	338/8.20	ISEE-A-B	342/14.90	Hawkeye 1	346/17.87
Vela 6B	334/2.78	IMP-J	338/11.89	Vela 6A	342/21.62	Vela 5A	347/0.82
Hawkeye 1	334/15.75	Solrad 11A	338/13.57	Hawkeye 1	343/4.57	Hawkeye 1	347/11.00
ISEE-A-B	335/7.10	Vela 5B	338/17.71	ISEE-A-B	343/6.15	ISEE-A-B	347/11.93
Vela 6A	335/8.34	Vela 6B	338/20.09	Solrad 11B	343/7.51	Vela 6A	347/14.40
Solrad 11A	335/9.92	Hawkeye 1	338/22.17	Vela 5B	343/10.39	Vela 5B	348/3.26
Vela 5A	335/19.03	Vela 6A	340/1.62	Vela 6B	343/13.21	ISEE-A-B	348/4.04
Vela 5B	335/20.81	ISEE-A-B	340/4.32	Solrad 11A	343/17.84	Vela 6B	348/6.28
ISEE-A-B	335/21.32	Hawkeye 1	340/7.85	Hawkeye 1	344/14.53	Solrad 11B	348/11.78
Hawkeye 1	336/1.17	Vela 5A	340/11.64	IMP-H	344/16.34	Prognoz 5	348/20.23

Table 2. Magnetopause Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Hawkeye 1	348/21.21	Vela 6B	352/23.18	ISEE-A-B	357/6.01	Prognoz 5	361/12.65
Solrad 11A	348/21.92	ISEE-A-B	353/2.07	IMP-H	357/10.25	IMP-J	361/15.20
IMP-J	349/1.39	Hawkeye 1	353/9.89	Hawkeye 1	357/10.57	Vela 6A	361/16.17
Vela 6A	349/11.78	Prognoz 5	353/13.43	Vela 5B	357/12.57	Hawkeye 1	361/17.29
Prognoz 5	349/13.90	Solrad 11B	353/15.96	Prognoz 5	357/13.03	Solrad 11B	361/24.00
Hawkeye 1	349/14.21	Hawkeye 1	353/20.65	Vela 6B	357/15.98	ISEE-A-B	362/2.87
Vela 5A	349/20.78	Solrad 11A	354/2.01	ISEE-A-B	358/0.28	Vela 5B	362/5.26
ISEE-A-B	349/22.46	Vela 6A	354/4.62	Hawkeye 1	358/3.14	Vela 6B	362/8.75
Vela 5B	349/23.79	Vela 5A	354/13.28	Solrad 11B	358/20.04	Hawkeye 1	362/9.64
ISEE-A-B	350/15.03	Vela 5B	354/16.51	Vela 6A	358/21.42	ISEE-A-B	362/22.56
Solrad 11A	350/22.23	IMP-H	354/16.65	Vela 5A	359/5.82	Vela 6A	363/14.15
Hawkeye 1	351/0.56	ISEE-A-B	354/19.53	Solrad 11A	359/6.12	Hawkeye 1	363/20.64
Vela 6B	351/1.64	Hawkeye 1	355/7.23	Vela 5B	359/9.23	Vela 5A	363/22.34
IMP-J	351/11.04	ISEE-A-B	355/13.17	Hawkeye 1	359/13.93	Solrad 11B	364/0.18
Solrad 11B	351/15.68	Vela 6B	355/18.26	ISEE-A-B	359/16.46	Vela 5B	364/1.90
Hawkeye 1	351/17.43	Hawkeye 1	355/23.89	Hawkeye 1	360/6.39	IMP-J	364/5.62
Vela 5A	351/17.60	Solrad 11A	356/2.29	Vela 6B	360/10.89	Solrad 11A	364/10.18
Vela 6A	352/6.98	Vela 5A	356/10.18	ISEE-A-B	360/11.42	Hawkeye 1	364/12.89
ISEE-A-B	352/9.00	Prognoz 5	356/19.12	Prognoz 5	360/18.57	ISEE-A-B	364/13.28
Prognoz 5	352/19.67	Solrad 11B	356/19.87	Vela 5A	361/2.76	Prognoz 5	364/17.98
Vela 5B	352/19.89	Vela 6A	356/23.59	Solrad 11A	361/6.31	Vela 6B	365/3.45

Table 2. Magnetopause Crossings, Days 182-365 1977 (concluded)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)		
ISEE-A-B	365/9.73	Prognoz 5	365/12.26	Vela 5A	365/19.31		

Table 3. Bow Shock Crossings, Days 182-365 1977

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Prognoz 5	183/7.96	IMP-H	200/20.55	Prognoz 5	216/18.16	Solrad 11B	235/4.89
Solrad 11B	183/12.12	Prognoz 5	200/22.29	IMP-H	218/18.82	IMP-J	235/7.40
Prognoz 5	185/3.88	Solrad 11B	201/0.73	Prognoz 5	218/20.97	Prognoz 5	236/14.42
Solrad 11B	185/12.51	IMP-J	202/15.07	Solrad 11B	219/16.60	Solrad 11B	237/5.28
IMP-J	185/19.17	Prognoz 5	203/1.70	Prognoz 5	220/17.31	Prognoz 5	238/15.86
Prognoz 5	187/6.66	Solrad 11B	204/4.38	Solrad 11B	221/17.04	IMP-J	239/10.27
IMP-H	188/8.48	Prognoz 5	204/21.09	Prognoz 5	222/19.91	IMP-H	239/11.85
Solrad 11B	188/16.19	IMP-H	205/22.69	IMP-J	222/21.47	Solrad 11B	240/8.95
Prognoz 5	189/2.40	Solrad 11B	206/4.82	Prognoz 5	224/16.48	Prognoz 5	240/13.92
IMP-J	190/12.48	Prognoz 5	207/0.52	Solrad 11B	224/20.64	Solrad 11B	242/9.27
Solrad 11B	190/16.66	Prognoz 5	208/19.98	IMP-H	226/15.78	Prognoz 5	242/14.89
Prognoz 5	191/5.40	Solrad 11B	209/8.55	Prognoz 5	226/18.88	IMP-H	244/8.25
Prognoz 5	193/0.97	IMP-J	210/12.08	Solrad 11B	226/21.12	Prognoz 5	244/13.50
IMP-H	193/4.72	Prognoz 5	210/23.28	IMP-J	226/23.78	Solrad 11B	245/12.96
Solrad 11B	193/20.23	Solrad 11B	211/8.80	Prognoz 5	228/15.71	Prognoz 5	246/14.03
Prognoz 5	195/4.14	Prognoz 5	212/19.00	Solrad 11B	230/0.67	Solrad 11B	247/13.42
Solrad 11B	195/20.74	IMP-H	213/15.58	Prognoz 5	230/17.85	IMP-J	247/21.56
Prognoz 5	196/23.59	Solrad 11B	214/12.51	IMP-H	231/14.64	Prognoz 5	248/13.07
IMP-J	198/3.67	IMP-J	214/16.39	Solrad 11B	232/1.14	Prognoz 5	250/13.22
Solrad 11B	199/0.25	Prognoz 5	214/22.09	Prognoz 5	232/15.03	Solrad 11B	250/17.06
Prognoz 5	199/2.91	Solrad 11B	216/12.88	Prognoz 5	234/16.85	IMP-J	252/0.12

Table 3. Bow Shock Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
IMP-H	252/2.74	IMP-H	269/16.92	Solrad 11B	286/21.61	Solrad 11B	297/5.99
Prognoz 5	252/12.64	Prognoz 5	270/9.34	ISEE-A-B	287/1.10	Prognoz 5	298/5.36
Solrad 11B	252/17.60	Solrad 11B	271/9.43	Prognoz 5	288/10.66	ISEE-A-B	298/11.92
Prognoz 5	254/12.43	Prognoz 5	272/11.26	ISEE-A-B	288/17.01	IMP-J	298/18.76
Solrad 11B	255/21.09	Solrad 11B	273/9.96	Solrad 11B	288/22.40	Solrad 11B	299/6.67
Prognoz 5	256/12.23	IMP-J	273/15.89	IMP-H	289/10.53	ISEE-A-B	299/7.39
IMP-H	256/23.99	Prognoz 5	274/8.71	ISEE-A-B	289/11.96	Prognoz 5	300/10.59
Solrad 11B	257/21.67	Prognoz 5	276/11.13	IMP-J	289/19.94	ISEE-A-B	300/22.59
Prognoz 5	258/11.63	Solrad 11B	276/13.49	Prognoz 5	290/6.40	ISEE-A-B	301/18.28
Prognoz 5	260/11.89	IMP-H	276/22.35	ISEE-A-B	291/3.72	IMP-H	302/1.09
IMP-J	260/19.50	IMP-J	277/10.92	ISEE-A-B	291/22.78	Prognoz 5	302/4.97
Solrad 11B	261/1.20	Prognoz 5	278/8.14	Solrad 11B	292/1.84	IMP-J	302/5.89
Prognoz 5	262/10.84	Solrad 11B	278/14.14	Prognoz 5	292/10.56	Solrad 11B	302/10.01
Solrad 11B	263/1.79	Prognoz 5	280/10.96	ISEE-A-B	293/14.46	ISEE-A-B	303/9.23
Prognoz 5	264/11.59	Solrad 11B	281/17.60	Solrad 11B	294/2.59	ISEE-A-B	304/5.17
IMP-H	264/12.74	Prognoz 5	282/7.58	Prognoz 5	294/5.85	Prognoz 5	304/10.63
IMP-J	264/18.39	IMP-H	282/10.85	ISEE-A-B	294/9.63	Solrad 11B	304/10.79
Solrad 11B	266/5.42	Solrad 11B	283/18.35	IMP-H	295/4.57	ISEE-A-B	305/19.85
Prognoz 5	266/10.07	Prognoz 5	284/10.79	ISEE-A-B	296/1.19	Prognoz 5	306/4.66
Solrad 11B	268/5.89	Prognoz 5	286/6.99	Prognoz 5	296/10.53	ISEE-A-B	306/16.05
Prognoz 5	268/11.39	IMP-J	286/7.00	ISEE-A-B	296/20.50	Solrad 11B	307/14.11

Table 3. Bow Shock Crossings, Days 182-365 1977 (continued)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
IMP-H	307/19.03	ISEE-A-B	318/0.86	Solrad 11B	328/6.65	ISEE-A-B	338/16.01
ISEE-A-B	308/6.45	Prognoz 5	318/3.65	Prognoz 5	328/10.53	IMP-J	339/16.89
Prognoz 5	308/10.61	ISEE-A-B	318/22.83	ISEE-A-B	328/19.12	ISEE-A-B	339/23.10
ISEE-A-B	309/2.92	Solrad 11B	319/23.32	Prognoz 5	330/2.92	IMP-H	340/8.51
Solrad 11B	309/15.01	IMP-H	320/8.75	ISEE-A-B	330/5.50	Prognoz 5	340/10.39
Prognoz 5	310/4.35	Prognoz 5	320/10.46	Solrad 11B	330/7.59	Solrad 11B	340/16.03
ISEE-A-B	310/17.08	ISEE-A-B	320/11.40	ISEE-A-B	331/6.29	ISEE-A-B	341/3.43
IMP-J	310/23.85	ISEE-A-B	321/9.82	Prognoz 5	332/10.56	Prognoz 5	342/2.56
ISEE-A-B	311/13.84	Prognoz 5	322/3.34	ISEE-A-B	332/15.92	ISEE-A-B	342/9.43
Prognoz 5	312/10.57	ISEE-A-B	322/21.96	IMP-H	333/0.50	ISEE-A-B	343/14.98
Solrad 11B	312/18.23	IMP-J	323/2.43	Solrad 11B	333/10.71	Solrad 11B	343/18.95
ISEE-A-B	313/3.76	Solrad 11B	323/2.55	ISEE-A-B	333/17.50	Prognoz 5	344/10.20
ISEE-A-B	314/0.85	ISEE-A-B	323/20.87	Prognoz 5	334/2.82	ISEE-A-B	344/19.64
Prognoz 5	314/4.00	Prognoz 5	324/10.47	ISEE-A-B	335/2.31	Solrad 11B	345/20.18
IMP-J	314/15.64	Solrad 11B	325/3.51	IMP-J	335/9.56	Hawkeye 1	345/20.45
IMP-H	314/17.64	ISEE-A-B	325/8.50	Solrad 11B	335/11.75	IMP-H	345/21.28
Solrad 11B	314/19.25	Prognoz 5	326/3.08	ISEE-A-B	336/4.73	Hawkeye 1	346/0.29
ISEE-A-B	315/14.34	ISEE-A-B	326/7.96	Prognoz 5	336/10.50	Prognoz 5	346/2.37
Prognoz 5	316/10.52	IMP-J	327/0.62	ISEE-A-B	337/12.68	ISEE-A-B	346/2.54
ISEE-A-B	316/11.87	IMP-H	327/12.79	Prognoz 5	338/2.73	ISEE-A-B	347/5.78
Solrad 11B	317/22.28	ISEE-A-B	327/19.03	Solrad 11B	338/14.85	IMP-J	347/21.90

Table 3. Bow Shock Crossings, Days 182-365 1977 (concluded)

Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)	Satellite	Time (d/h)
Hawkeye 1	347/22.48	Prognoz 5	352/9.81	Prognoz 5	356/9.67	Hawkeye 1	361/3.92
Hawkeye 1	348/4.84	Hawkeye 1	352/12.90	Hawkeye 1	356/20.51	ISEE-A-B	361/4.18
Prognoz 5	348/10.00	IMP-J	352/17.20	ISEE-A-B	356/21.46	Solrad 11B	361/8.62
ISEE-A-B	348/14.18	IMP-H	353/1.68	Prognoz 5	358/1.98	ISEE-A-B	361/15.42
Solrad 11B	348/23.14	ISEE-A-B	353/13.96	Hawkeye 1	358/12.20	Prognoz 5	362/1.96
ISEE-A-B	349/15.89	Prognoz 5	354/2.06	ISEE-A-B	358/14.85	Hawkeye 1	362/18.20
Hawkeye 1	350/0.96	Solrad 11B	354/3.39	IMP-H	358/18.32	Hawkeye 1	363/7.54
Prognoz 5	350/2.21	Hawkeye 1	354/6.40	Hawkeye 1	359/0.23	Prognoz 5	364/9.20
Hawkeye 1	350/8.96	ISEE-A-B	354/11.79	ISEE-A-B	359/6.78	Solrad 11B	364/11.57
Solrad 11B	351/0.35	Hawkeye 1	354/16.73	Solrad 11B	359/7.48	Hawkeye 1	364/21.26
ISEE-A-B	351/1.96	ISEE-A-B	356/2.23	Prognoz 5	360/9.46	Hawkeye 1	365/11.14
ISEE-A-B	352/1.90	Solrad 11B	356/4.51	IMP-J	360/11.62	IMP-J	365/11.60
Hawkeye 1	352/3.62	Hawkeye 1	356/9.26	Hawkeye 1	360/15.17	IMP-H	365/15.09

Table 4. Neutral Sheet Passes, Days 182-365 1977

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Vela 6B	182/6.23	182/10.74	Vela 5A	199/10.08	199/15.21	Vela 6A	215/14.98	215/15.85
Vela 6A	183/10.40	183/14.16	Solrad 11A	200/6.75	200/12.81	Vela 6A	216/0.51	216/5.88
Vela 5B	183/12.81	183/17.66	IMP-J	200/8.95	200/15.23	Solrad 11A	216/1.35	216/5.39
Solrad 11A	185/5.50	185/9.02	Vela 6B	200/12.86	201/0.90	Vela 5B	216/4.96	216/8.32
Vela 5A	185/12.32	185/17.18	Vela 6A	202/2.41	202/7.73	Vela 5A	218/3.97	218/7.46
Vela 6B	186/16.39	187/1.34	Vela 5B	202/6.44	202/10.22	Solrad 11B	218/8.56	218/12.53
Vela 6A	188/3.84	188/9.28	Solrad 11B	203/3.66	203/13.02	Solrad 11B	218/23.86	219/1.04
Vela 5B	188/7.98	188/11.91	Vela 5A	204/5.66	204/9.45	Vela 6B	219/6.72	219/10.03
IMP-J	188/12.52	188/17.68	Vela 6B	205/8.38	205/12.41	Vela 6A	220/8.80	220/13.25
Solrad 11A	190/5.34	190/13.02	Vela 6A	206/10.72	206/19.49	Vela 5B	220/14.92	221/3.33
Vela 5A	190/7.41	190/11.37	Vela 5B	206/13.43	207/4.88	Solrad 11A	221/1.40	221/5.98
Vela 6B	191/10.26	191/14.49	Solrad 11B	208/3.93	208/15.96	Vela 5A	222/12.98	223/1.63
Vela 6A	192/13.54	192/21.05	Vela 5A	208/12.05	209/3.64	Solrad 11B	223/23.67	224/3.47
Vela 5B	192/22.05	193/6.32	Vela 6B	210/3.34	210/7.71	Vela 6B	224/1.66	224/5.92
Solrad 11B	193/3.97	193/5.02	Solrad 11A	211/1.50	211/5.02	IMP-J	224/4.48	224/7.47
Vela 5A	194/20.02	195/5.41	Vela 6A	211/6.89	211/10.52	Vela 6A	225/5.36	225/8.50
Solrad 11A	195/5.55	195/13.80	Vela 5B	211/8.79	211/13.05	Vela 5B	225/7.40	225/10.53
Vela 6B	196/4.88	196/9.48	IMP-J	212/6.06	212/10.15	Solrad 11A	226/1.72	226/7.46
Vela 6A	197/8.68	197/12.70	Solrad 11B	213/4.87	213/15.41	Solrad 11A	226/13.59	226/17.02
Vela 5B	197/10.72	197/16.50	Vela 5A	213/8.14	213/11.85	Vela 5A	227/6.65	227/9.57
Solrad 11B	198/3.70	198/9.02	Vela 6B	214/10.18	214/23.25	Vela 6B	228/10.98	228/12.78

Table 4. Neutral Sheet Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Solrad 11B	228/23.70	229/3.75	Vela 5B	248/21.94	249/0.69	Solrad 11A	287/18.61	287/23.85
Vela 6A	229/17.92	230/4.17	Solrad 11B	249/2.65	249/23.47	Solrad 11B	289/23.70	290/21.10
Vela 5B	230/3.67	230/6.76	Solrad 11A	251/21.50	252/2.15	Solrad 11A	292/19.56	293/0.75
Solrad 11A	231/2.49	231/21.02	Vela 6B	252/0.98	252/3.38	IMP-H	292/23.21	293/2.72
Vela 5A	232/2.38	232/5.78	Solrad 11B	254/7.00	254/23.82	Solrad 11B	294/23.73	295/3.39
Vela 6B	233/5.42	233/8.28	Solrad 11A	256/22.28	257/3.09	Solrad 11B	295/15.46	295/22.03
Solrad 11B	234/0.01	234/4.42	Vela 6A	258/0.98	258/1.71	Solrad 11A	297/20.11	298/1.94
Vela 5B	234/17.92	235/1.93	Solrad 11B	259/18.43	260/0.38	Solrad 11B	300/17.45	300/22.78
Solrad 11A	236/4.03	237/1.03	Solrad 11A	261/23.08	262/4.72	IMP-J	301/5.97	301/8.64
Vela 5A	236/18.70	236/23.13	Solrad 11B	264/20.11	265/1.10	Vela 5B	302/4.42	302/5.00
Vela 6B	237/23.80	238/4.46	Solrad 11A	266/23.88	267/8.62	Solrad 11A	302/20.39	303/5.79
Solrad 11B	239/0.48	239/5.63	Solrad 11A	267/15.92	267/19.66	IMP-H	305/1.67	305/8.39
Vela 6A	239/4.17	239/7.00	IMP-H	268/2.19	268/4.82	Vela 6B	305/4.34	305/5.00
Solrad 11B	239/16.00	239/17.07	Solrad 11B	269/21.14	270/2.06	IMP-H	305/13.21	305/19.80
Solrad 11A	241/19.10	242/1.21	Solrad 11A	272/0.96	272/21.22	Solrad 11B	305/18.37	305/23.41
Vela 6A	243/20.94	244/2.75	Solrad 11B	274/21.94	275/3.57	Vela 6A	306/7.84	306/11.00
Solrad 11B	244/1.29	244/8.77	Solrad 11A	277/8.08	277/22.17	Solrad 11A	307/20.39	308/17.71
Vela 5B	244/3.96	244/5.66	Solrad 11B	279/22.61	280/6.85	Solrad 11B	310/18.80	310/23.85
Solrad 11B	244/13.43	244/21.07	IMP-H	280/4.50	281/0.92	Vela 6A	311/3.12	311/5.02
Vela 5A	246/1.99	246/4.52	Solrad 11A	282/16.71	282/22.99	Solrad 11A	312/21.92	313/19.52
Solrad 11A	246/20.64	247/1.57	Solrad 11B	284/23.21	285/19.46	Vela 5A	313/6.27	313/12.56

Table 4. Neutral Sheet Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
IMP-J	313/7.64	313/14.42	Vela 5A	327/6.57	327/15.38	Solrad 11B	341/13.87	341/18.70
Solrad 11B	315/18.95	316/0.09	Solrad 11A	328/15.95	328/20.48	IMP-H	341/21.98	341/23.42
Vela 6A	315/23.14	316/0.01	Vela 6B	328/18.40	328/22.87	IMP-H	342/2.54	342/17.31
Vela 5B	316/4.64	316/7.67	IMP-H	329/19.39	330/0.01	Vela 6B	342/18.43	342/22.85
IMP-H	317/15.76	317/22.28	Vela 6A	329/23.03	330/1.70	Vela 6A	343/22.68	344/1.68
Vela 5A	318/1.85	318/4.20	Vela 5B	330/5.10	330/8.90	Vela 5B	344/5.51	344/10.87
Solrad 11A	318/1.92	318/7.50	Solrad 11B	331/3.92	331/18.92	Solrad 11A	344/9.37	344/13.53
Solrad 11A	318/13.46	318/20.32	Vela 5A	332/1.73	332/4.34	Vela 5A	346/1.28	346/4.37
Vela 6B	319/4.50	319/7.51	Vela 6B	333/4.78	333/8.40	Solrad 11B	346/15.95	346/18.31
Vela 6A	320/8.59	320/19.00	Solrad 11A	333/16.10	333/20.14	Vela 6B	347/4.98	347/9.85
Solrad 11B	320/18.96	320/23.61	Vela 6A	334/9.93	334/21.00	Vela 6A	348/12.32	348/20.92
Vela 5B	321/0.65	321/3.03	Vela 5B	335/0.62	335/3.26	Vela 5B	349/0.32	349/3.46
Solrad 11B	321/3.78	321/16.53	Solrad 11B	336/7.92	336/8.96	Solrad 11A	349/7.76	349/15.54
Vela 5A	322/21.22	323/0.23	Solrad 11B	336/13.09	336/18.93	IMP-J	350/6.34	351/0.82
Solrad 11A	323/5.93	323/6.49	Vela 5A	336/20.81	337/0.07	Vela 5A	350/20.07	350/23.68
Solrad 11A	323/15.26	323/20.55	Vela 6B	338/0.42	338/3.12	Vela 6B	351/23.89	352/3.10
Vela 6B	324/0.53	324/2.95	IMP-J	338/1.39	338/4.09	Vela 6A	353/2.89	353/6.76
Vela 6A	325/3.18	325/5.79	Solrad 11A	338/17.95	338/19.67	Vela 5B	353/18.67	353/22.71
IMP-J	325/8.68	325/13.07	Vela 6A	339/3.23	339/6.29	Solrad 11A	354/7.59	354/15.84
Vela 5B	325/18.78	325/22.85	Vela 5B	339/19.00	339/22.93	IMP-H	354/16.67	354/17.39
Solrad 11B	326/3.28	326/18.35	Vela 5A	341/7.03	341/16.32	Vela 5A	355/7.15	355/16.10

Table 4. Neutral Sheet Passes, Days 182-365 1977 (concluded)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Solrad 11A	355/20.73	355/22.04	Vela 5A	360/0.15	360/4.03	Vela 5B	362/23.25	363/3.12
Vela 6B	356/17.90	356/22.46	Solrad 11A	360/20.65	360/22.28	Solrad 11B	363/17.96	363/20.04
Vela 6A	357/21.90	358/1.39	Vela 6B	361/4.50	361/11.29	Solrad 11A	364/14.93	364/15.29
Vela 5B	358/5.70	358/13.32	Vela 6A	362/13.12	362/20.25	Vela 5A	364/18.87	364/22.78
Solrad 11A	359/10.92	359/15.67	IMP-J	362/21.60	363/2.82	Vela 6B	365/22.64	365/23.93

Table 5. Midlatitude Magnetotail Passes, Days 182-365 1977

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Solrad 11B	182/1.00	182/16.02	Solrad 11A	188/20.93	189/8.84	Vela 6A	197/4.65	197/8.68
Vela 6B	182/1.00	182/6.23	IMP-H	189/17.98	190/3.95	Vela 5B	197/6.99	197/10.72
Vela 6B	182/10.74	182/14.02	Solrad 11A	189/22.92	190/5.34	Vela 6A	197/12.70	197/17.13
Vela 6A	183/6.17	183/10.40	Vela 5A	190/2.29	190/7.41	Vela 5B	197/16.50	198/2.83
Vela 5B	183/8.55	183/12.81	Vela 5A	190/11.37	190/15.09	Solrad 11B	197/22.38	198/3.70
Vela 6A	183/14.16	183/17.62	Vela 6B	191/6.27	191/10.26	Solrad 11A	199/4.93	199/6.09
Solrad 11A	183/17.29	184/12.41	Vela 6B	191/14.49	191/19.05	Vela 5A	199/6.50	199/10.08
Vela 5B	183/17.66	184/2.13	Solrad 11B	191/18.73	192/15.88	IMP-J	199/13.65	199/16.78
Solrad 11A	185/0.40	185/5.50	Vela 6A	192/8.73	192/13.54	Vela 5A	199/15.21	200/0.48
Vela 5A	185/8.17	185/12.32	Vela 5B	192/10.94	192/22.05	Solrad 11A	199/20.51	200/6.75
Vela 5A	185/17.18	186/0.68	Vela 6A	192/21.05	193/7.80	IMP-J	200/4.24	200/8.95
Vela 6B	186/10.09	186/16.39	Solrad 11B	192/23.60	193/3.97	Vela 6B	200/8.24	200/12.86
Solrad 11B	186/18.57	187/16.19	Vela 5B	193/6.32	193/11.03	Solrad 11A	200/12.81	200/21.02
Vela 6B	187/1.34	187/9.60	Solrad 11A	194/0.93	194/7.12	IMP-J	200/15.23	201/11.92
Vela 6A	187/12.93	188/3.84	Vela 5A	194/9.98	194/20.02	Vela 6B	201/0.90	201/8.73
Solrad 11B	188/0.55	188/1.02	Solrad 11A	194/21.23	195/5.55	Vela 6A	201/13.94	202/2.41
Vela 5B	188/3.10	188/7.98	Vela 5A	195/5.41	195/10.45	Solrad 11B	201/20.94	202/7.21
IMP-J	188/7.11	188/12.52	Solrad 11A	195/13.80	195/17.02	Vela 5B	202/1.77	202/6.44
Vela 6A	188/9.28	188/12.99	Vela 6B	195/14.95	196/4.88	Vela 6A	202/7.73	202/11.98
Vela 5B	188/11.91	188/15.56	Vela 6B	196/9.48	196/13.34	Vela 5B	202/10.22	202/14.49
IMP-J	188/17.68	189/12.84	Solrad 11B	196/18.98	197/12.07	Solrad 11B	202/21.24	203/3.66

Table 5. Midlatitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Vela 5A	204/0.23	204/5.66	IMP-J	211/18.42	211/19.80	Solrad 11A	219/21.21	220/6.25
Vela 5A	204/9.45	204/13.59	IMP-J	212/1.64	212/6.06	Vela 6A	220/7.95	220/8.80
Solrad 11A	204/20.47	206/1.02	IMP-J	212/10.15	213/9.59	Vela 6A	220/13.25	221/4.34
Vela 6B	205/4.74	205/8.38	Solrad 11B	212/20.80	213/4.87	Solrad 11A	220/18.20	221/1.40
Vela 6B	205/12.41	205/18.31	Vela 5A	213/4.99	213/8.14	Vela 5B	221/3.33	221/7.78
Vela 6A	206/7.08	206/10.72	Vela 5A	213/11.85	213/22.63	Solrad 11A	221/5.98	221/13.02
Vela 5B	206/11.99	206/13.43	Solrad 11B	213/15.41	213/21.03	Solrad 11B	222/21.42	223/23.67
Vela 6A	206/19.49	207/6.38	Vela 6B	214/8.96	214/10.18	Vela 5A	223/1.63	223/6.70
Solrad 11B	207/0.95	207/5.62	Solrad 11A	214/20.92	216/1.35	Vela 6B	223/18.92	224/1.66
Vela 5B	207/4.88	207/9.66	Vela 6B	214/23.25	215/7.04	IMP-J	224/2.60	224/4.48
Solrad 11B	207/20.77	208/3.93	Vela 6A	215/15.85	216/0.51	Solrad 11B	224/3.47	224/5.04
Vela 5A	208/11.93	208/12.05	Vela 5B	215/23.82	216/4.96	Vela 6B	224/5.92	224/9.81
Solrad 11B	208/15.96	208/17.04	Solrad 11A	216/5.39	216/9.02	IMP-J	224/7.47	224/11.92
Vela 5A	209/3.64	209/8.80	Vela 6A	216/5.88	216/10.21	IMP-J	224/16.21	225/5.99
Vela 6B	209/16.92	210/3.34	Vela 5B	216/8.32	216/12.30	Solrad 11A	225/0.92	225/4.25
Solrad 11A	209/20.64	211/1.50	Vela 5A	217/20.92	218/3.97	Vela 6A	225/1.41	225/5.36
Vela 6B	210/7.71	210/11.89	Solrad 11B	217/21.07	218/8.56	Vela 5B	225/6.98	225/7.40
Vela 6A	211/3.07	211/6.89	Vela 5A	218/7.46	218/11.23	Vela 6A	225/8.50	225/12.55
Vela 5B	211/5.61	211/8.79	Solrad 11B	218/12.53	218/23.86	Vela 5B	225/10.53	226/0.29
Vela 6A	211/10.52	211/15.46	Vela 6B	219/3.31	219/6.72	Solrad 11A	225/19.42	226/1.72
Vela 5B	211/13.05	212/1.86	Vela 6B	219/10.03	219/15.58	Solrad 11A	226/7.46	226/13.59

Table 5. Midlatitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Vela 5A	227/5.96	227/6.65	IMP-J	236/18.78	237/3.30	Vela 6B	247/7.95	247/10.06
Vela 5A	227/9.57	227/15.02	Vela 5A	236/23.13	237/4.81	Vela 6A	248/13.96	248/14.66
Solrad 11B	227/21.81	228/23.70	Vela 6B	237/20.98	237/23.80	Vela 6A	248/16.55	249/0.28
Vela 6B	228/12.78	229/5.03	Solrad 11B	238/0.97	238/3.50	Solrad 11B	248/20.40	249/2.65
Solrad 11B	229/3.75	229/9.04	Vela 6B	238/4.46	238/7.89	Vela 5B	249/0.69	249/4.78
Vela 5B	229/23.98	230/3.67	Solrad 11B	238/18.63	239/0.48	Solrad 11B	249/23.47	250/2.00
Vela 6A	230/4.17	230/8.15	Vela 6A	239/3.92	239/4.17	Vela 5A	250/19.96	251/3.32
Vela 5B	230/6.76	230/10.03	Solrad 11B	239/5.63	239/16.00	Solrad 11A	250/22.07	251/21.50
IMP-H	230/7.57	230/8.88	Vela 6A	239/7.00	239/10.18	Solrad 11A	252/2.15	252/6.49
Solrad 11A	230/20.21	231/2.49	Vela 5B	239/10.94	239/13.35	Vela 6B	252/3.38	252/6.50
Vela 5A	231/22.96	232/2.38	Solrad 11A	240/21.34	241/19.10	Vela 6A	253/7.94	253/8.74
Vela 5A	232/5.78	232/9.00	Vela 5A	241/8.97	241/11.39	Solrad 11B	253/20.95	254/7.00
Solrad 11B	232/22.15	233/5.57	Solrad 11A	242/1.21	242/4.67	Solrad 11B	254/23.82	255/3.39
Vela 6B	233/3.97	233/5.42	Vela 6B	242/14.92	243/3.25	IMP-H	255/4.67	255/17.04
Vela 6B	233/8.28	233/12.01	Solrad 11B	243/19.67	244/1.29	Solrad 11A	256/0.93	256/4.60
Solrad 11B	233/16.69	234/0.01	Vela 6A	244/2.75	244/6.42	Solrad 11A	256/16.42	256/22.28
Solrad 11B	234/4.42	234/13.06	Vela 5B	244/5.66	244/8.46	Vela 6B	256/18.96	257/1.96
Vela 6A	234/10.92	235/2.25	Solrad 11B	244/8.77	244/13.43	Solrad 11A	257/3.09	257/17.03
Vela 5B	235/1.93	235/6.06	Solrad 11A	245/21.78	246/20.64	Vela 6A	258/1.71	258/5.22
Solrad 11A	235/20.81	236/4.03	Vela 5A	246/4.52	246/7.39	Solrad 11B	258/21.39	259/18.43
Vela 5A	236/15.96	236/18.70	Solrad 11A	247/1.57	247/5.30	Solrad 11B	260/0.38	260/4.11

Table 5. Midlatitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Solrad 11A	261/18.08	261/23.08	Solrad 11A	276/19.89	277/8.08	Solrad 11B	294/21.99	294/23.73
Solrad 11A	262/4.72	262/21.04	Solrad 11A	277/22.17	278/2.35	Solrad 11B	295/3.39	295/15.46
Vela 5B	263/3.96	263/4.05	Solrad 11B	279/18.15	279/22.61	Solrad 11B	295/22.03	296/2.76
Solrad 11B	263/21.93	264/20.11	IMP-H	280/0.87	280/4.50	Vela 5B	297/6.00	297/10.01
Solrad 11B	265/1.10	265/5.29	Solrad 11B	280/6.85	281/0.42	Solrad 11A	297/15.82	297/20.11
Vela 5A	265/1.96	265/2.35	Solrad 11A	281/20.96	282/16.71	Solrad 11A	298/1.94	298/23.35
Solrad 11A	266/18.98	266/23.88	Solrad 11A	282/22.99	283/3.25	Vela 5A	299/3.37	299/6.02
Solrad 11A	267/8.62	267/15.92	Solrad 11B	284/18.69	284/23.21	Solrad 11B	300/2.92	300/17.45
IMP-H	267/9.06	267/11.90	Solrad 11B	285/19.46	286/1.01	Vela 6B	300/5.75	300/10.01
Solrad 11A	267/19.66	268/1.05	Solrad 11A	287/0.96	287/18.61	Solrad 11B	300/22.78	301/4.21
IMP-H	267/22.97	268/2.19	Solrad 11A	287/23.85	288/4.72	IMP-J	301/3.25	301/5.97
IMP-H	268/4.82	268/7.70	Solrad 11B	289/18.91	289/23.70	Solrad 11B	301/17.71	301/19.00
Solrad 11B	269/1.94	269/5.45	Solrad 11B	290/21.10	291/1.80	Vela 5B	302/1.90	302/4.42
Solrad 11B	269/15.49	269/21.14	Solrad 11A	292/4.96	292/7.10	Solrad 11A	302/16.47	302/20.39
Solrad 11B	270/2.06	270/7.62	IMP-H	292/5.32	292/23.21	Solrad 11A	303/5.79	304/0.05
Solrad 11B	270/13.85	270/18.03	Solrad 11A	292/14.36	292/19.56	Vela 5A	303/23.47	304/1.00
Vela 6B	271/0.98	271/1.23	Solrad 11A	293/0.75	293/7.73	IMP-H	304/20.75	305/1.67
Solrad 11A	271/19.58	272/0.96	IMP-H	293/2.72	293/6.13	Vela 6B	305/1.76	305/4.34
Solrad 11A	272/21.22	273/1.68	Solrad 11A	293/14.07	293/21.07	Solrad 11B	305/6.92	305/9.19
Solrad 11B	274/17.24	274/21.94	IMP-H	293/15.60	293/20.79	IMP-H	305/8.39	305/13.21
Solrad 11B	275/3.57	275/22.03	Vela 5A	294/8.96	294/12.00	Solrad 11B	305/12.42	305/18.37

Table 5. Midlatitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
IMP-H	305/19.80	306/0.82	Solrad 11B	316/0.09	317/0.14	Vela 6B	323/21.27	324/0.53
Solrad 11B	305/23.41	306/7.24	Vela 5B	316/1.87	316/4.64	Vela 6B	324/2.95	324/5.22
Vela 6A	306/4.34	306/7.84	Vela 5B	316/7.67	316/12.03	Solrad 11A	324/15.93	324/22.01
Solrad 11B	306/14.39	306/22.67	IMP-H	316/21.55	317/15.76	Vela 6A	325/0.28	325/3.18
Vela 5B	306/21.67	306/23.02	IMP-H	317/22.28	318/2.96	IMP-J	325/4.17	325/8.68
Solrad 11A	307/16.98	307/20.39	Vela 5A	317/23.07	318/1.85	Vela 6A	325/5.79	325/9.71
Vela 5A	308/9.52	308/19.02	Vela 5A	318/4.20	318/6.74	Vela 5B	325/7.34	325/18.78
Solrad 11A	308/17.71	309/0.75	Solrad 11A	318/7.50	318/13.46	IMP-J	325/13.07	325/21.93
Vela 6B	309/21.55	310/0.00	Solrad 11A	318/20.32	319/2.47	Vela 5B	325/22.85	326/1.01
Solrad 11B	310/14.30	310/18.80	Vela 6B	319/1.66	319/4.50	Solrad 11B	325/22.98	326/3.28
Solrad 11B	310/23.85	311/23.41	Vela 6B	319/7.51	319/13.00	Solrad 11B	326/18.35	327/1.41
Vela 6A	311/0.51	311/3.12	Solrad 11A	319/17.77	319/18.00	Vela 5A	327/3.08	327/6.57
Vela 5B	311/6.50	311/18.01	Vela 6A	320/4.49	320/8.59	Vela 5A	327/15.38	327/20.01
Vela 5A	313/3.25	313/6.27	Vela 5B	320/21.57	321/0.65	Vela 6B	328/6.59	328/18.40
IMP-J	313/4.11	313/7.64	Solrad 11B	320/23.61	321/3.78	Solrad 11A	328/9.93	328/15.95
Vela 5A	313/12.56	313/14.00	Vela 5B	321/3.03	321/5.32	Solrad 11A	328/20.48	329/9.25
IMP-J	313/14.42	313/15.60	Solrad 11B	321/16.53	322/0.79	Vela 6B	328/22.87	329/1.01
Solrad 11A	313/19.52	314/1.50	Vela 5A	322/10.96	322/21.22	IMP-H	329/2.64	329/4.60
Vela 6B	314/6.05	314/18.02	Vela 5A	323/0.23	323/2.02	Solrad 11A	329/10.29	330/0.25
Solrad 11B	315/15.00	315/18.95	Solrad 11A	323/6.49	323/15.26	IMP-H	329/15.48	329/19.39
Vela 6A	315/18.96	315/23.14	Solrad 11A	323/20.55	324/3.81	Vela 6A	329/18.73	329/23.03

Table 5. Midlatitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
IMP-H	330/0.01	330/20.14	Solrad 11B	337/14.53	337/23.06	Vela 6A	344/1.68	344/4.21
Vela 6A	330/1.70	330/3.95	Vela 6B	337/20.85	338/0.42	Vela 5B	344/10.87	344/20.68
Vela 5B	330/1.84	330/5.10	IMP-J	337/20.92	338/1.39	Solrad 11A	344/13.53	345/1.45
Vela 5B	330/8.90	330/19.00	Vela 6B	338/3.12	338/5.67	Vela 5A	345/21.67	346/1.28
Solrad 11B	331/18.92	332/2.06	IMP-J	338/4.09	338/6.84	Vela 5A	346/4.37	346/7.73
Vela 5A	331/22.57	332/1.73	Solrad 11A	338/19.67	340/1.21	Solrad 11B	346/18.31	346/23.67
Vela 5A	332/4.34	332/7.17	Vela 6A	338/23.81	339/3.23	Vela 6B	347/0.68	347/4.98
Solrad 11B	332/16.42	332/19.04	Vela 6A	339/6.29	339/12.50	Solrad 11B	347/3.18	348/1.96
Vela 6B	333/1.43	333/4.78	Vela 5B	339/8.78	339/19.00	Vela 6B	347/9.85	347/20.92
Vela 6B	333/8.40	333/19.01	Vela 5B	339/22.93	340/1.60	Vela 6A	348/4.28	348/12.32
Solrad 11A	333/13.93	333/16.10	Vela 5A	341/2.59	341/7.03	Vela 5B	348/20.64	349/0.32
Solrad 11A	333/20.14	335/0.79	Solrad 11B	341/11.95	341/13.87	Vela 6A	348/20.92	349/0.32
Vela 6A	334/4.59	334/9.93	Vela 5A	341/16.32	341/22.15	Solrad 11A	349/2.34	349/7.76
Vela 6A	334/21.00	335/0.18	Solrad 11B	341/18.70	343/1.54	Vela 5B	349/3.46	349/6.56
Vela 5B	334/21.26	335/0.62	IMP-H	341/23.42	342/2.54	Solrad 11A	349/15.54	350/1.17
Vela 5B	335/3.26	335/5.81	Vela 6B	342/7.26	342/18.43	IMP-J	350/0.45	350/6.34
Solrad 11B	336/8.96	336/13.09	IMP-H	342/17.31	342/21.62	Vela 5A	350/13.75	350/20.07
Vela 5A	336/13.31	336/20.81	Vela 6B	342/22.85	343/1.60	Solrad 11A	350/14.73	350/18.04
Solrad 11B	336/18.93	337/2.73	Vela 6A	343/18.25	343/22.68	Vela 5A	350/23.68	351/2.50
Vela 5A	337/0.07	337/2.54	Solrad 11A	343/21.96	344/9.37	IMP-J	351/0.82	351/3.62
IMP-J	337/9.93	337/11.57	Vela 5B	344/1.29	344/5.51	Solrad 11B	351/19.96	351/21.93

Table 5. Midlatitude Magnetotail Passes, Days 182-365 1977 (concluded)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Vela 6B	351/19.96	351/23.89	Vela 6B	356/22.46	357/1.59	Vela 6A	362/1.35	362/13.12
Vela 6B	352/3.10	352/6.14	Solrad 11B	357/4.45	358/1.90	Solrad 11B	362/4.92	362/23.90
Solrad 11B	352/3.90	353/2.14	Vela 6A	357/17.40	357/21.90	IMP-J	362/11.92	362/21.60
Vela 6A	352/22.68	353/2.89	Vela 5B	357/23.75	358/5.70	Vela 5B	362/19.46	362/23.25
Vela 6A	353/6.76	353/16.68	Vela 6A	358/1.39	358/4.39	Vela 6A	362/20.25	363/0.12
Vela 5B	353/10.46	353/18.67	Vela 5B	358/13.32	358/20.87	IMP-J	363/2.82	363/8.71
Vela 5B	353/22.71	354/1.71	Solrad 11B	358/14.00	358/16.03	Vela 5B	363/3.12	363/7.12
Solrad 11A	354/6.92	354/7.59	Solrad 11A	359/15.67	359/21.40	IMP-J	363/12.89	363/23.56
Solrad 11A	354/15.84	354/23.57	Vela 5A	359/20.28	360/0.15	Solrad 11B	363/12.93	363/17.96
IMP-H	354/17.39	354/20.25	Vela 5A	360/4.03	360/8.28	Vela 5A	364/13.10	364/18.87
Vela 5A	355/0.84	355/7.15	Solrad 11A	360/11.21	360/20.65	Solrad 11A	364/15.29	364/19.98
IMP-H	355/7.73	355/13.78	Solrad 11A	360/22.28	361/2.04	Vela 5A	364/22.78	365/2.10
Solrad 11A	355/13.45	355/20.73	Vela 6B	360/22.87	361/4.50	Solrad 11A	365/8.23	365/23.92
Vela 5A	355/16.10	355/21.90	Vela 6B	361/11.29	361/20.85	Vela 6B	365/18.65	365/22.64
Vela 6B	356/7.51	356/17.90	IMP-J	361/23.70	362/7.90			

Table 6. High-Latitude Magnetotail Passes, Days 182-365 1977

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Vela 6B	182/14.02	183/0.03	Vela 5A	189/17.95	190/2.29	IMP-J	199/16.78	200/4.24
Solrad 11B	182/16.02	182/21.01	IMP-H	190/3.95	192/0.42	Vela 5A	200/0.48	200/15.07
Vela 6A	182/19.98	183/6.17	Vela 5A	190/15.09	191/6.05	Vela 6B	200/7.91	200/8.24
Vela 5B	183/1.95	183/8.55	Vela 6B	190/22.92	191/6.27	Vela 6B	201/8.73	201/19.02
Solrad 11A	183/16.92	183/17.29	Solrad 11B	191/12.93	191/18.73	IMP-J	201/11.92	201/22.84
Vela 6A	183/17.62	184/6.05	Vela 6B	191/19.05	192/10.00	Vela 5B	201/19.94	202/1.77
Vela 5B	184/2.13	184/14.04	Vela 6A	192/4.95	192/8.73	IMP-H	202/6.16	204/16.19
Solrad 11A	184/12.41	185/0.40	Solrad 11B	192/15.88	192/23.60	Solrad 11B	202/7.21	202/21.24
Vela 5A	185/1.94	185/8.17	Vela 6A	193/7.80	193/16.02	Vela 6A	202/11.98	203/1.03
Vela 5A	186/0.68	186/14.00	Vela 5B	193/11.03	194/0.01	Vela 5B	202/14.49	203/9.04
Vela 6B	186/5.98	186/10.09	Solrad 11A	194/7.12	194/21.23	Vela 5A	203/18.96	204/0.23
Solrad 11B	186/8.92	186/18.57	Vela 5A	195/10.45	195/23.02	Solrad 11A	204/8.92	204/20.47
IMP-J	187/9.22	188/7.11	Vela 6B	196/13.34	197/2.05	Vela 5A	204/13.59	205/8.02
Vela 6B	187/9.60	187/17.02	Solrad 11B	196/16.94	196/18.98	Vela 6B	204/23.95	205/4.74
Solrad 11B	187/16.19	188/0.55	Vela 6A	196/20.98	197/4.65	Vela 6B	205/18.31	206/11.05
Vela 5B	187/17.99	188/3.10	Vela 5B	197/2.98	197/6.99	Vela 6A	206/5.98	206/7.08
Vela 6A	188/12.99	188/23.04	Solrad 11B	197/12.07	197/22.38	Solrad 11B	207/5.62	207/20.77
Vela 5B	188/15.56	189/7.02	Vela 6A	197/17.13	198/8.06	Vela 6A	207/6.38	207/17.06
Solrad 11A	189/8.84	189/22.92	Vela 5B	198/2.83	198/16.06	Vela 5B	207/9.66	208/2.01
IMP-J	189/12.84	189/19.16	Vela 5A	199/2.93	199/6.50	Vela 5A	209/8.80	210/0.06
IMP-H	189/13.50	189/17.98	Solrad 11A	199/6.09	199/20.51	Solrad 11A	209/12.92	209/20.64

Table 6. High-Latitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Vela 6B	210/11.89	211/4.02	Solrad 11A	220/6.25	220/18.20	Solrad 11B	233/5.57	233/16.69
Vela 6A	210/22.93	211/3.07	Vela 6A	221/4.34	221/19.01	Vela 6B	233/12.01	234/14.02
Vela 5B	211/4.96	211/5.61	Vela 5B	221/7.78	222/3.06	Vela 6A	235/2.25	235/20.01
Vela 6A	211/15.46	212/10.02	Solrad 11B	222/12.96	222/21.42	Vela 5B	235/6.06	236/5.02
IMP-J	211/19.80	212/1.64	Vela 5A	223/6.70	224/1.06	Solrad 11A	235/8.92	235/20.81
Vela 5B	212/1.86	212/18.05	Vela 6B	224/9.81	225/5.04	IMP-J	236/12.82	236/18.78
Solrad 11B	212/4.94	212/20.80	IMP-J	224/11.92	224/16.21	IMP-J	237/3.30	238/15.60
Vela 5A	213/3.96	213/4.99	Vela 6A	225/0.93	225/1.41	Vela 5A	237/4.81	238/2.06
IMP-J	213/9.59	214/0.91	Solrad 11A	225/4.25	225/19.42	Solrad 11B	238/3.50	238/18.63
Vela 5A	213/22.63	214/17.01	IMP-J	225/5.99	226/7.49	Vela 6B	238/7.89	239/6.05
Solrad 11A	214/16.92	214/20.92	Vela 6A	225/12.55	226/11.03	Vela 6A	239/10.18	240/12.03
IMP-H	215/4.31	217/11.60	Vela 5B	226/0.29	226/20.02	Vela 5B	239/13.35	240/21.05
Vela 6B	215/7.04	215/20.06	Vela 5A	227/15.02	228/18.02	Solrad 11A	240/12.92	240/21.34
Vela 5B	215/21.93	215/23.82	Solrad 11B	227/16.96	227/21.81	IMP-H	240/23.74	243/2.92
Vela 6A	216/10.21	217/2.06	IMP-H	228/4.68	230/7.57	Vela 5A	241/11.39	242/19.01
Vela 5B	216/12.30	217/11.02	Vela 6B	229/5.03	229/22.00	Solrad 11A	242/4.67	242/5.03
Solrad 11B	217/8.95	217/21.07	Solrad 11A	230/4.92	230/20.21	Vela 6B	243/3.25	243/23.01
Vela 5A	218/11.23	219/9.04	Vela 6A	230/8.15	231/3.06	Solrad 11B	243/4.98	243/19.67
Vela 6B	219/1.93	219/3.31	Vela 5B	230/10.03	231/12.06	Vela 6A	244/6.42	245/5.00
Vela 6B	219/15.58	220/13.01	Vela 5A	232/9.00	233/10.03	Vela 5B	244/8.46	245/14.02
Solrad 11A	219/20.92	219/21.21	Solrad 11B	232/20.96	232/22.15	Solrad 11A	245/16.92	245/21.78

Table 6. High-Latitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Vela 5A	246/7.39	247/11.03	Vela 5B	258/9.94	259/16.00	Solrad 11A	271/12.94	271/19.58
Solrad 11A	247/5.30	247/9.03	Solrad 11B	258/17.92	258/21.39	Vela 6A	272/7.96	273/7.02
Vela 6B	247/10.06	248/15.03	Solrad 11B	260/4.11	260/10.00	Vela 5B	272/16.97	273/18.00
Solrad 11B	248/8.99	248/20.40	Vela 5A	260/7.95	261/12.03	Solrad 11A	273/1.68	273/5.04
Vela 6A	248/14.66	248/16.55	Solrad 11A	261/4.93	261/18.08	Solrad 11B	274/5.95	274/17.24
Vela 6A	249/0.28	249/21.02	Vela 6B	261/12.96	262/16.03	Vela 5A	274/14.97	275/14.01
IMP-J	249/4.72	251/3.75	IMP-J	262/3.93	263/21.75	IMP-J	274/23.90	276/13.66
Vela 5B	249/4.78	250/6.04	Vela 6A	262/18.97	263/22.02	Vela 6B	275/19.96	276/18.03
Solrad 11A	250/20.93	250/22.07	Vela 5B	263/4.05	264/8.02	Solrad 11A	276/16.94	276/19.89
Vela 5A	251/3.32	252/3.04	Vela 5A	265/2.35	266/5.00	Vela 6A	277/1.98	278/0.01
Solrad 11A	252/6.49	252/13.03	Solrad 11B	265/5.29	265/14.02	Vela 5B	277/11.97	278/11.00
Vela 6B	252/6.50	253/8.00	IMP-H	265/23.60	267/9.06	Solrad 11A	278/2.35	278/9.05
Vela 6A	253/8.74	254/13.03	Vela 6B	266/6.96	267/9.02	IMP-H	278/11.95	280/0.87
IMP-H	253/13.08	255/4.67	Solrad 11A	266/8.94	266/18.98	Solrad 11B	279/9.96	279/18.15
Solrad 11B	253/13.92	253/20.95	IMP-H	267/11.90	267/22.97	Vela 5A	279/9.96	280/7.01
Vela 5B	253/15.93	254/23.02	Vela 6A	267/12.98	268/15.00	Vela 6B	280/14.96	281/11.02
Solrad 11B	255/3.39	255/6.00	Vela 5B	267/21.98	269/1.01	Solrad 11B	281/0.42	281/2.03
Vela 5A	255/13.95	256/20.01	Solrad 11B	269/5.45	269/15.49	Vela 6A	281/20.97	282/17.00
Solrad 11A	256/4.60	256/16.42	Vela 5A	269/19.98	270/21.03	Vela 5B	282/6.98	283/4.01
Vela 6B	257/1.96	258/0.02	Solrad 11B	270/7.62	270/13.85	Solrad 11A	283/3.25	283/13.05
Vela 6A	258/5.22	259/6.00	Vela 6B	271/1.23	272/2.00	Vela 5A	284/4.96	285/0.02

Table 6. High-Latitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Solrad 11B	284/13.97	284/18.69	Vela 5B	296/14.97	297/6.00	Solrad 11A	309/0.75	309/9.99
Vela 6B	285/8.98	286/5.00	Solrad 11A	297/8.97	297/15.82	Vela 6B	309/2.97	309/21.55
Solrad 11B	286/1.01	286/6.04	Vela 5A	298/10.99	299/3.37	Vela 6A	310/8.97	311/0.51
Vela 6A	286/15.96	287/10.01	Solrad 11A	298/23.35	299/1.07	Solrad 11B	310/10.94	310/14.30
Vela 5B	287/1.97	287/22.00	Vela 6B	299/15.98	300/5.75	Vela 5B	310/19.96	311/6.50
IMP-J	287/10.72	288/23.03	IMP-J	299/19.75	301/3.25	Solrad 11B	311/23.41	312/3.01
Solrad 11A	288/4.72	288/17.05	Vela 6A	300/21.98	301/16.01	IMP-J	312/0.44	313/4.11
Vela 5A	288/22.98	289/18.00	Solrad 11B	301/4.21	301/17.71	Vela 5A	312/14.97	313/3.25
Solrad 11B	289/17.98	289/18.91	Vela 5B	301/8.97	302/1.90	Vela 6B	313/19.97	314/6.05
Vela 6B	290/3.97	290/22.00	Solrad 11A	302/12.97	302/16.47	Solrad 11A	314/1.50	314/13.99
Solrad 11B	291/1.80	291/10.06	Vela 5A	303/4.97	303/23.47	Vela 6A	315/1.96	315/18.96
IMP-H	291/3.10	292/5.32	IMP-H	303/17.91	304/20.75	Vela 5B	315/11.99	316/1.87
Vela 6A	291/9.98	292/4.00	Solrad 11A	304/0.05	304/5.07	Solrad 11B	315/14.96	315/15.00
Vela 5B	291/20.96	292/16.00	Vela 6B	304/9.96	305/1.76	IMP-H	316/9.00	316/21.55
Solrad 11A	292/7.10	292/14.36	Solrad 11B	305/9.19	305/12.42	Solrad 11B	317/0.14	317/7.02
IMP-H	293/6.13	293/15.60	Vela 6A	305/15.96	306/4.34	Vela 5A	317/7.96	317/23.07
Solrad 11A	293/7.73	293/14.07	IMP-H	306/0.82	306/14.03	IMP-H	318/2.96	319/5.21
Vela 5A	293/17.96	294/8.96	Vela 5B	306/1.99	306/21.67	Vela 5A	318/6.74	318/8.01
Vela 6B	294/21.98	295/16.00	Solrad 11B	306/7.24	306/14.39	Vela 6B	318/12.96	319/1.66
Solrad 11B	296/2.76	296/15.00	Solrad 11B	306/22.67	306/23.00	Solrad 11A	319/2.47	319/17.77
Vela 6A	296/3.99	296/22.00	Vela 5A	307/21.98	308/9.52	Vela 6A	319/17.99	320/4.49

Table 6. High-Latitude Magnetotail Passes, Days 182-365 1977 (continued)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
Vela 5B	320/4.98	320/21.57	Vela 5A	331/8.96	331/22.57	Vela 5B	340/1.60	340/6.00
Vela 5B	321/5.32	321/7.00	Solrad 11B	332/2.06	332/16.42	Vela 5A	340/17.95	341/2.59
Vela 5A	321/23.98	322/10.96	Vela 5A	332/7.17	332/13.98	Vela 5A	341/22.15	342/0.04
Solrad 11B	322/0.79	322/11.03	Vela 6B	332/14.93	333/1.43	Vela 6B	341/22.98	342/7.26
Vela 6B	323/4.99	323/21.27	Vela 6A	333/19.96	334/4.59	IMP-H	342/21.62	344/16.35
IMP-J	324/2.11	325/4.17	Vela 5B	334/6.98	334/21.26	Solrad 11B	343/1.54	343/3.98
Solrad 11A	324/3.81	324/15.93	Vela 6A	335/0.18	335/1.00	Vela 6B	343/1.60	343/6.03
Vela 6B	324/5.22	324/7.01	Solrad 11A	335/0.79	335/6.01	Vela 6A	343/4.93	343/18.25
Vela 6A	324/10.96	325/0.28	Vela 5B	335/5.81	335/12.03	Vela 5B	343/15.98	344/1.29
Vela 5B	324/21.96	325/7.34	Vela 5A	336/1.93	336/13.31	Vela 6A	344/4.21	344/12.00
Vela 6A	325/9.71	325/13.00	IMP-J	336/10.06	337/9.93	Vela 5B	344/20.68	344/23.01
Vela 5A	326/16.95	327/3.08	Vela 5A	337/2.54	337/7.01	Solrad 11A	345/1.45	345/14.01
Solrad 11B	327/1.41	327/15.05	Solrad 11B	337/2.73	337/14.53	Vela 5A	345/9.98	345/21.67
Vela 6B	327/21.96	328/6.59	Vela 6B	337/6.96	337/20.85	Vela 5A	346/7.73	346/17.04
Vela 6A	329/3.93	329/18.73	IMP-J	337/11.57	337/20.92	Vela 6B	346/15.95	347/0.68
IMP-H	329/4.60	329/15.48	Vela 6B	338/5.67	338/13.00	Solrad 11B	346/23.67	347/3.18
Solrad 11A	329/9.25	329/10.29	IMP-J	338/6.84	338/11.90	Vela 6B	347/20.92	347/23.04
Vela 5B	329/14.95	330/1.84	Vela 6A	338/11.98	338/23.81	Vela 6A	347/20.96	348/4.28
Solrad 11A	330/0.25	330/2.01	Vela 5B	338/23.95	339/8.78	Solrad 11B	348/1.96	348/8.00
Vela 6A	330/3.95	330/7.00	Vela 6A	339/12.50	339/18.03	Vela 5B	348/8.95	348/20.64
IMP-H	330/20.14	331/21.21	Solrad 11A	340/1.21	340/10.03	Vela 6A	349/0.32	349/5.03

Table 6. High-Latitude Magnetotail Passes, Days 182-365 1977 (concluded)

Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)	Satellite	Entry Time (d/h)	Exit Time (d/h)
IMP-J	349/1.40	350/0.45	IMP-H	354/20.25	355/7.73	IMP-J	361/15.21	361/23.70
Solrad 11A	349/1.98	349/2.34	Solrad 11A	354/23.57	355/13.45	Vela 6B	361/20.85	362/2.06
Vela 5B	349/6.56	349/16.03	IMP-H	355/13.78	357/10.25	Vela 6A	361/21.98	362/1.35
Solrad 11A	350/1.17	350/14.73	Vela 5A	355/21.90	356/3.03	IMP-J	362/7.90	362/11.92
Vela 5A	350/2.93	350/13.75	Vela 6B	356/0.93	356/7.51	Vela 5B	362/10.93	362/19.46
Vela 5A	351/2.50	351/10.04	Solrad 11B	356/23.98	357/4.45	Solrad 11B	362/23.90	363/12.93
IMP-J	351/3.62	351/11.04	Vela 6B	357/1.59	357/9.98	Vela 6A	363/0.12	363/8.01
Vela 6B	351/7.96	351/19.96	Vela 6A	357/5.95	357/17.40	Vela 5B	363/7.12	363/19.01
Solrad 11B	351/21.93	352/3.90	Vela 5B	357/17.96	357/23.75	IMP-J	363/8.71	363/12.89
Vela 6B	352/6.14	352/16.98	Solrad 11B	358/1.90	358/14.00	IMP-J	363/23.56	364/5.62
Vela 6A	352/13.92	352/22.68	Vela 6A	358/4.39	358/15.03	Vela 5A	364/3.95	364/13.10
Vela 5B	353/1.92	353/10.46	Vela 5B	358/20.87	359/2.03	Solrad 11A	364/19.98	365/8.23
Solrad 11B	353/2.14	353/12.03	Vela 5A	359/11.92	359/20.28	Vela 5A	365/2.10	365/12.06
Vela 6A	353/16.68	353/22.03	Solrad 11A	359/21.40	360/11.21	Vela 6B	365/9.92	365/18.65
Vela 5B	354/1.71	354/9.04	Vela 5A	360/8.28	360/20.01			
Vela 5A	354/18.96	355/0.84	Vela 6B	360/16.96	360/22.87			

Table 7. Hawkeye 1 Northern Cusp Passes, Days 182-365 1977
(Only those passes with durations in excess of 0.3 h are shown.)

Entry Time (d/h)	Exit Time (d/h)	Entry Time (d/h)	Exit Time (d/h)
182/14.56	182/14.92	255/5.05	255/5.83
184/17.65	184/18.05	270/4.05	270/4.46
193/3.86	193/5.29	287/2.48	287/3.77
195/8.62	195/9.73	302/0.93	302/3.02
197/13.55	197/13.89	316/20.84	316/21.23
208/3.05	208/4.38	316/23.30	317/2.26
210/7.76	210/8.77	331/18.45	332/1.48
212/12.54	212/12.86	334/5.23	334/6.08
223/2.46	223/3.45	346/17.87	347/0.67
225/6.88	225/7.80	349/4.33	349/5.30
227/11.55	227/11.86	359/15.31	359/16.59
240/5.98	240/6.83	361/17.30	361/23.86
		364/3.45	364/4.36

Table 8. Definitions of Regions of Space for Special Periods

Region	Symbol	Definition
High-Latitude Magnetotail	HT	$X_{GSM} < -10R_E$, $\lvert Z_{GSM} - Z_{sh} \rvert > 6R_E$
Midlatitude Magnetotail	MT	$X_{GSM} < -10R_E$, $6R_E \geq \lvert Z_{GSM} - Z_{sh} \rvert \geq 2R_E$
Neutral Sheet	Sh	$X_{GSM} < -10R_E$, $2R_E > \lvert Z_{GSM} - Z_{sh} \rvert$
Dayside Magnetosphere	DM	Magnetosphere for $X_{GSE} > 0\ R_E$
Nightside Magnetosphere	NM	Magnetosphere for $0\ R_E \geq X_{GSE} \geq -10R_E$
Dayside Magnetosheath	DS	Magnetosheath for $X_{GSE} > 0\ R_E$
Nightside Magnetosheath	NS	Magnetosheath for $0\ R_E \geq X_{GSE}$
Interplanetary Medium	I	
Dayside Access Region (cusp)	C	$80^\circ \geq$ Mag. Lat $\geq 75^\circ$, 16 h $\geq$ Mag. Local Time $\geq$ 8 h
Bow Shock Wave	S	Corresponds to 420 km/s Solar Wind Speed
Magnetopause	P	Corresponds to 420 km/s Solar Wind Speed

GSM: Geocentric Solar Magnetospheric Coordinate System
GSE: Geocentric Solar Ecliptic Coordinate System

Table 9. IMS/SSC Special Periods for Days 182—365 1977 by Region†

Special Period No.	Approx. Time (d/h)	Satellite Regions											Comments
		Vela 5A	Vela 5B	Vela 6A	Vela 6B	IMP-H	IMP-J	Solrad 11A	Solrad 11B	Hawkeye 1	Prognoz 5	ISEE -A/-B	
	193/4	I	Sh	MT	S	S	I	S	Sh	C	NS		1½ h cusp pass.
	193/20	DS	HT	P	I	I	I	P	S	NM	P		Boundary encounters within 1½ h.
10	194/4	P	P	DS	I	I	I	MT	I	P	NM		Boundary encounters within ½ h.
	196/8	NS	DS	DS	Sh	I	I	DS	NS	NS	I		
	197/14	I	Sh	Sh - MT*	DS	I	I	I	HT	C	NS		Brief cusp pass.
11	201/4	DS	DS	NS	MT	NS	MT	NS	DS	NS	NS		8 in magnetosheath for 8 h.
	202/14	I	HT	HT	I	HT	S - I	I	HT	P - NS	P - DS		
12	216/10	I	HT	HT	I	HT	I	DS	DS	NM	I - S		3 in tail for 14 h.
	217/14	P	P	DS	I	P	I	I	HT	P	P		Boundary encounters within 4 h.
13	238/1	MT	I	I	Sh	I	HT	I	MT	NM	NM		4 in tail for 1 h.
14	240/6	I	HT	HT	I	NS	I	NS	NS	C	I		1 h in cusp pass.
	241/1	P	P	DS	I	P	I	MT	I	P	NS		Boundary encounters within 5 h.
	252/14	NS	DS	DS	MT	NS	I	P	S	P	I - S		Boundary encounters within 5 h.
15	252/21	NS	DS	DS	MT	NS	I	NS	DS	NM	NS		7 in magnetosheath for 6 h.
	255/18	I	HT	HT	NS	HT	I	I	HT	NM	NM		4 in tail for 8 h.
	274/3	P	P	DS	I	I	NS	I	P	P	P		Boundary encounters within 4 h.
16	275/10	HT	I	I	P	I	HT	I	MT	DS	I		
	276/3	DS	DS	DS	MT	I	MT	DS	DS	DS	I		6 in dayside magnetosheath for 2 h.
	277/3	I	P	MT	P	NS	NS	Sh	I	P	P		Boundary encounters within 2½ h.
17	291/22	I	HT	HT	DS	HT	I	NS	DS	DM	I	DS	3 in tail for 7 h.
	293/4	P	P	DS	I	MT	I	MT	I	P	P	I	Boundary encounters within 3½ h.
	304/20	DS	DS	NS	MT	MT	I	NS	NS	DS	NS	I	
18	305/20	I	P	MT	P	Sh	I	I	Sh	DS	P	I - S	Boundary encounters within 4 h.
	306/10	I	HT	Sh	DS	HT	I	I	HT	DM	I	DM	
19	313/18	NM	I	DS	NM	I	P	Sh	I	DS	P	P	Boundary encounters within 4 h.
	314/17	S	NS	P	NM	S	S	P	S	NM	I	I	Boundary encounters within 5 h.
	319/22	I	P	MT	P	NS	I	P	S	DS	I	I	Boundary encounters within 1 h.
20	320/10	I	MT	Sh	NS	S	I	S	NS	DS	S	S	Boundary encounters within 2 h.
	321/2	DS	MT	P	I	I	I	I	Sh	P	P	P	Boundary encounters within 4 h.
	344/17	DS	MT	P	I	P	I	MT	I	DM	P	S	Boundary encounters within 2 h.
21	345/21	MT	I	I	DS	NS	I	NS	DS	S	NS	DS	
	346/1	MT	I	I	DS	S	I	DS	DS	S	S	S	Boundary encounters within 5 h.
	361/15	DS	I	NS - P	MT	I	NS - P	DS	DS	DS	NS - P	I	
22	361/23	I	DS	HT	HT	I	HT	I	NS	C	NS	DS	6 h cusp pass.
	362/15	I	HT	Sh	NS	I	MT	I	MT	DS	I	NM	
	362/20	I	MT	MT	S	I	MT	I	MT	I	I	NM	

†See Table 8 for definitions of symbols.
*This type of notation indicates that the satellite passed from one to the other of the regions of interest (in this case from the neutral sheet to the midlatitude magnetotail) at the approximate time shown in column 2. Consult the bar charts in Appendix A or the plots in Appendix B for more details.

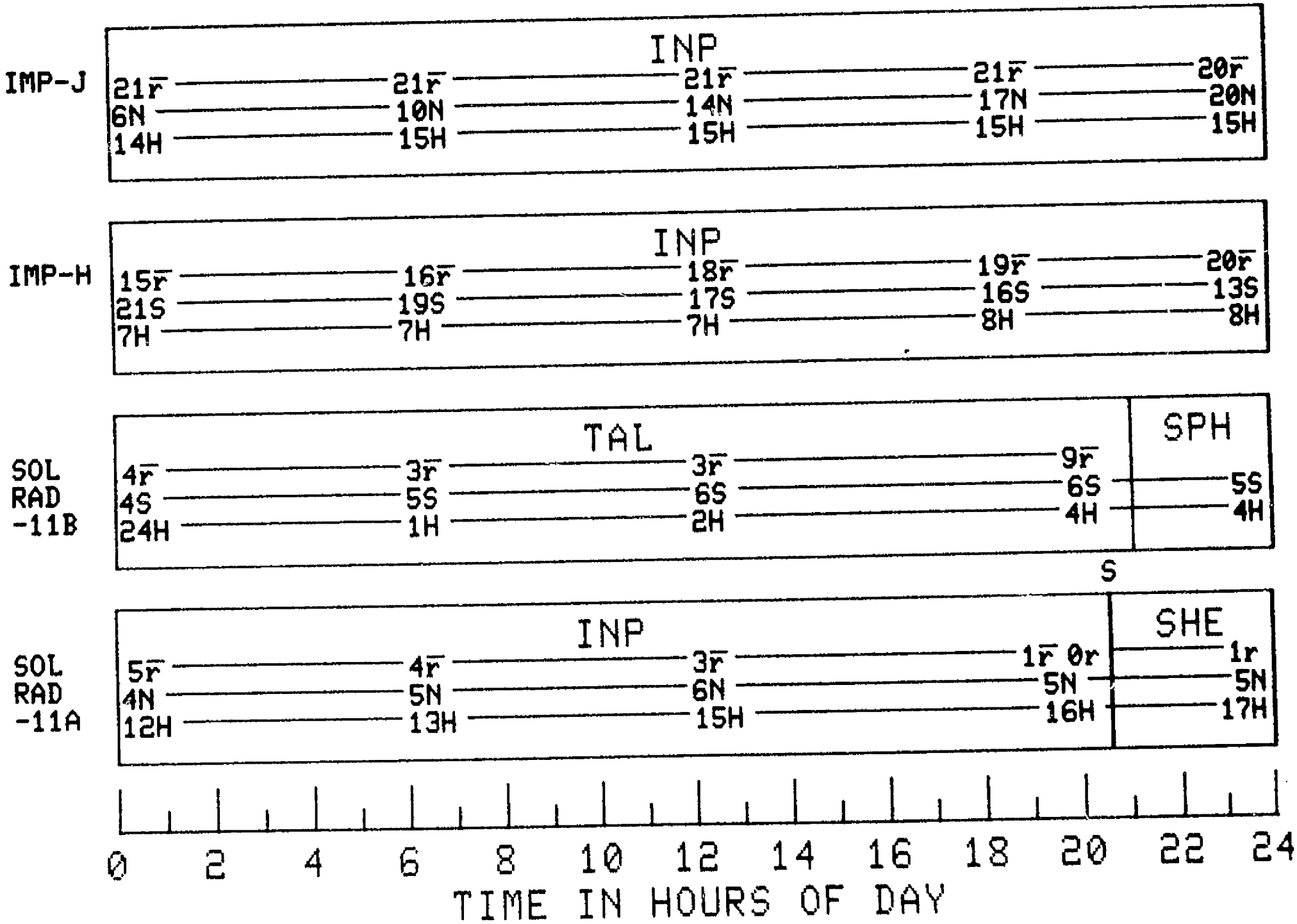
Table 10. IMS/SSC Special Periods for Days 182-365 1977 by Time Period

Special Period No.	Period (d/h)	Period (Date/h)	Duration (h)
10	192/22 - 197/20	July 11/22 - July 16/20	118
11	200/22 - 202/20	July 19/22 - July 21/20	46
12	216/13 - 217/20	August 4/13 - August 5/20	31
13	237/19 - 238/7	August 25/19 - August 26/7	12
14	239/24 - 241/7	August 27/24 - August 29/7	31
15	252/8 - 253/24	September 9/8 - September 10/24	40
16	273/21 - 277/9	September 30/21 - October 4/9	84
17	291/16 - 293/10	October 18/16 - October 20/10	42
18	304/14 - 306/16	October 31/14 - November 2/16	50
19	313/12 - 314/23	November 9/13 - November 10/23	35
20	319/16 - 321/8	November 15/16 - November 17/8	40
21	344/11 - 346/7	December 8/11 - December 12/7	44
22	361/7 - 363/2	December 27/7 - December 29/2	43
		Total	616

APPENDIX A

DAILY BAR CHARTS
FOR THE SECOND HALF OF 1977

DAY 182 1977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6N 10N 14N 17N 20N
14H 15H 15H 15H 15H
IMP-H
INP
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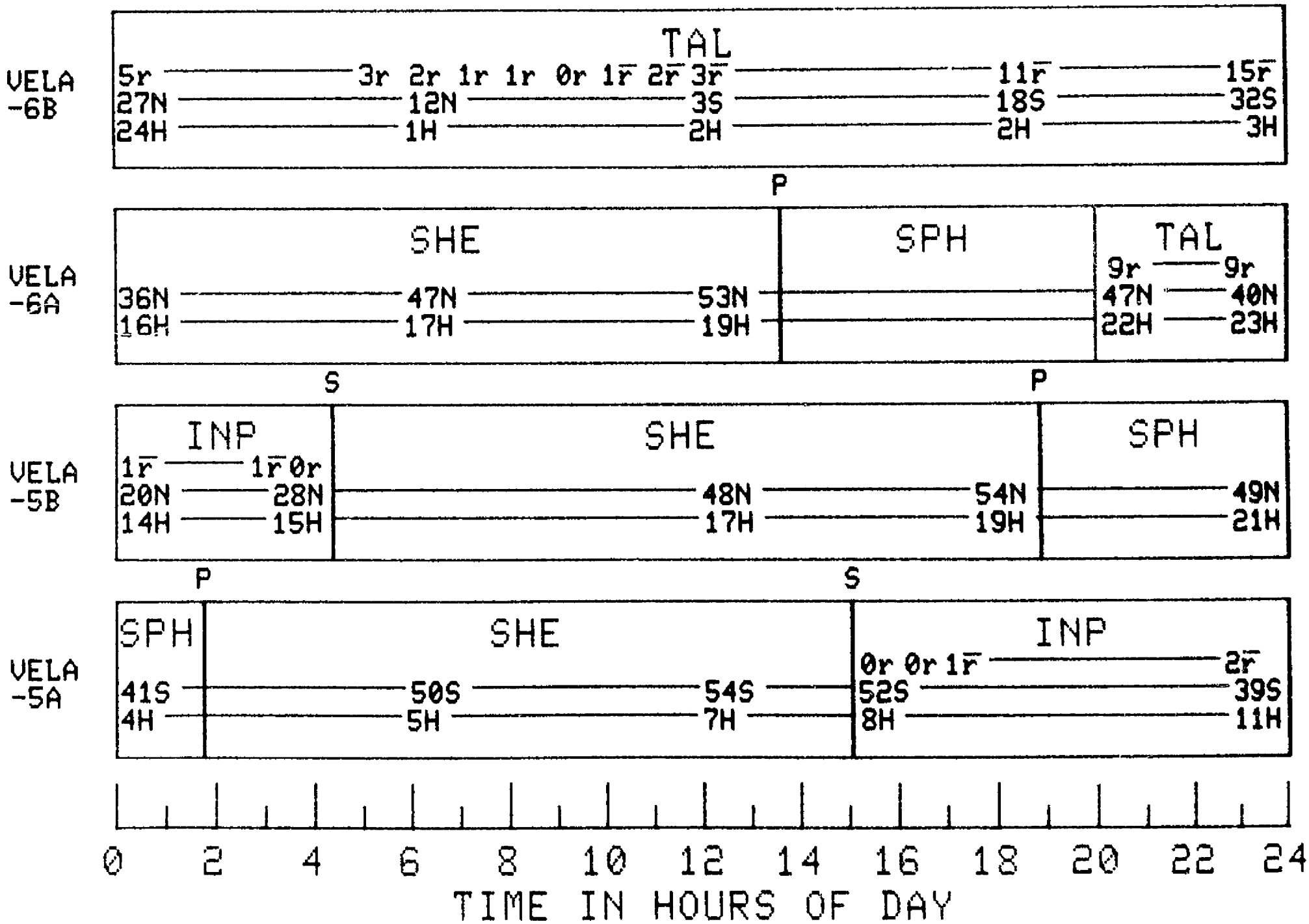
21S 19S 17S 16S 13S
7H 7H 7H 8H 8H
SOL RAD -11B
TAL
SPH
4r 3r 3r 9r
4S 5S 6S 6S 5S
24H 1H 2H 4H 4H
S
SOL RAD -11A
INP
SHE
5r 4r 3r 1r 0r 1r
4N 5N 6N 5N 5N
12H 13H 15H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 182 1977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TAL
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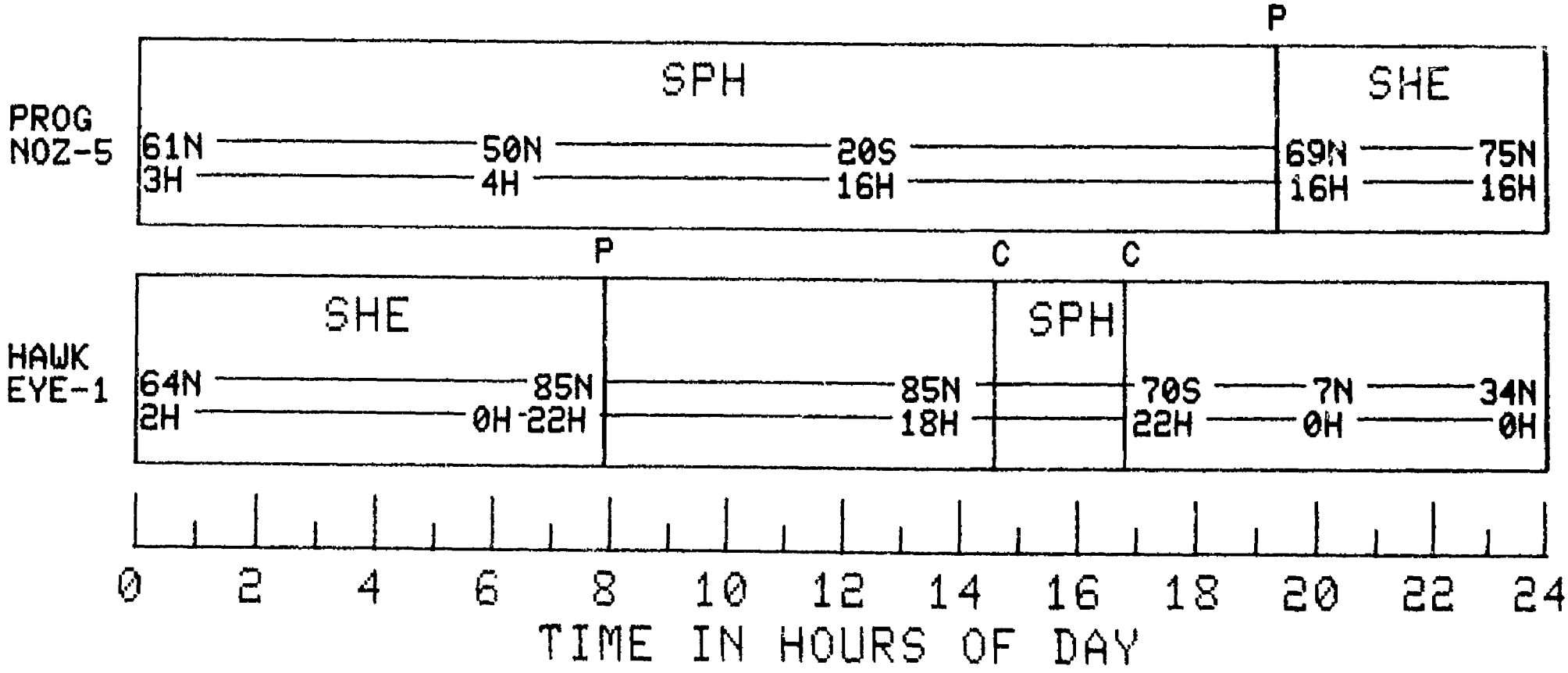
27N 12N 3S 18S 32S
24H 1H 2H 2H 3H
P
VELA -6A
SHE
SPH
TAL
9r 9r
36N 47N 53N 47N 40N
16H 17H 19H 22H 23H
S
P
VELA -5B
INP
SHE
SPH
1r̄ 1r̄ 0r
20N 28N 48N 54N 49N
14H 15H 17H 19H 21H
P
S
VELA -5A
SPH
SHE
INP
0r 0r 1r̄ 2r̄
41S 50S 54S 52S 39S
4H 5H 7H 8H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 182 1977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SHE
PROG
NOZ-5
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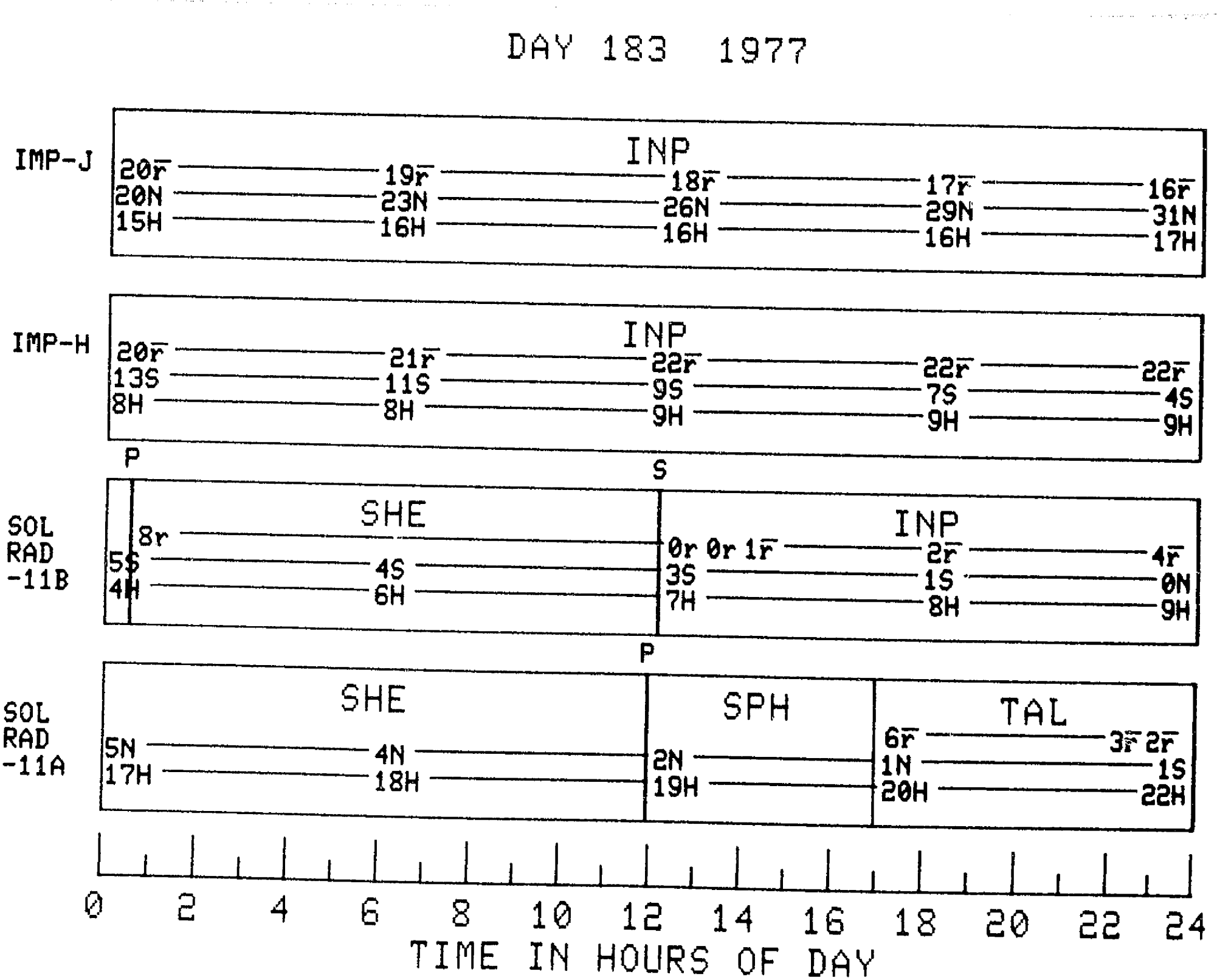
50N
20S
69N
75N
3H
4H
16H
16H
16H
P
C
C
SHE
SPH
HAWK
EYE-1
64N
85N
85N
70S
7N
34N
2H
0H
22H
18H
22H
0H
0H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 183 1977
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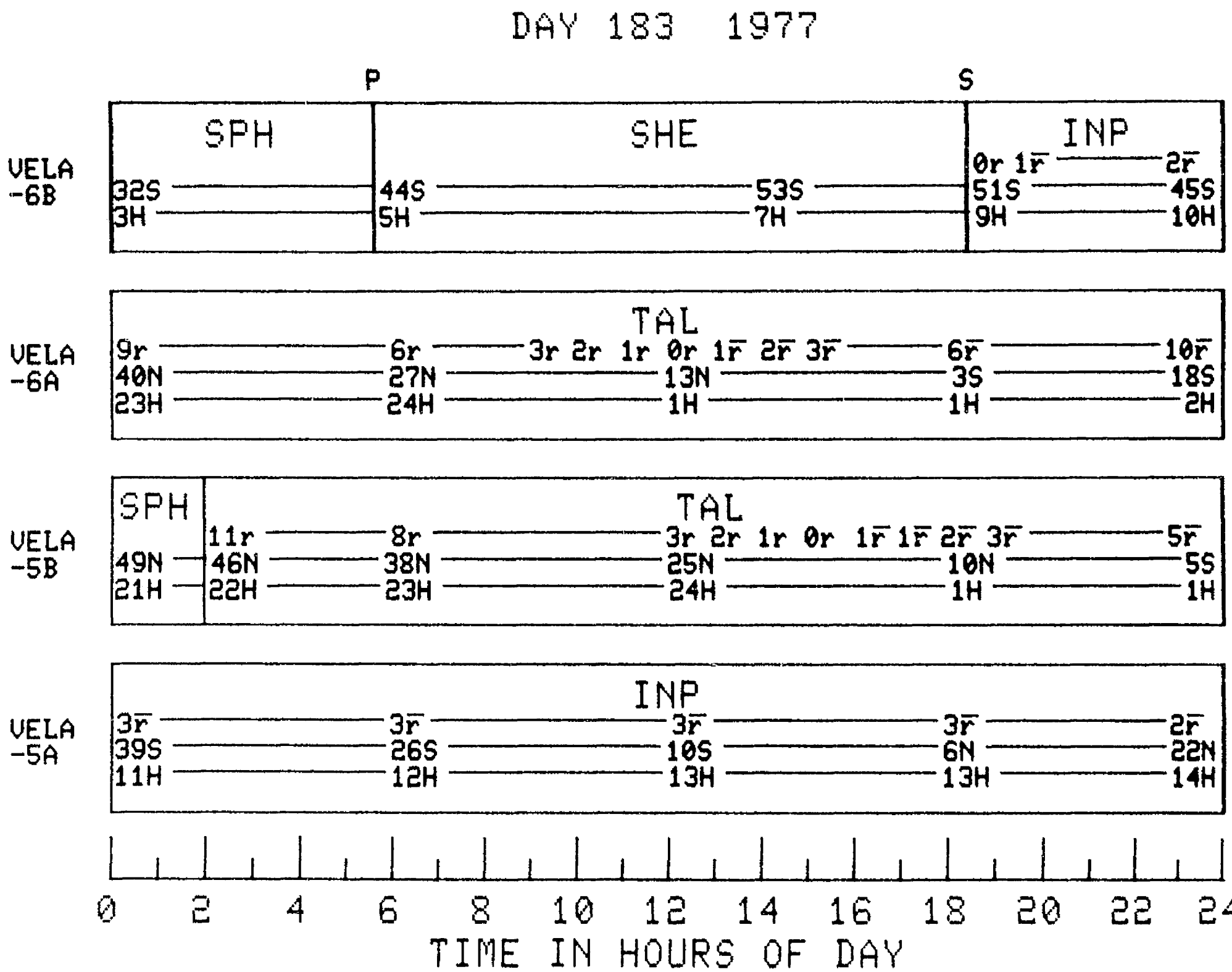
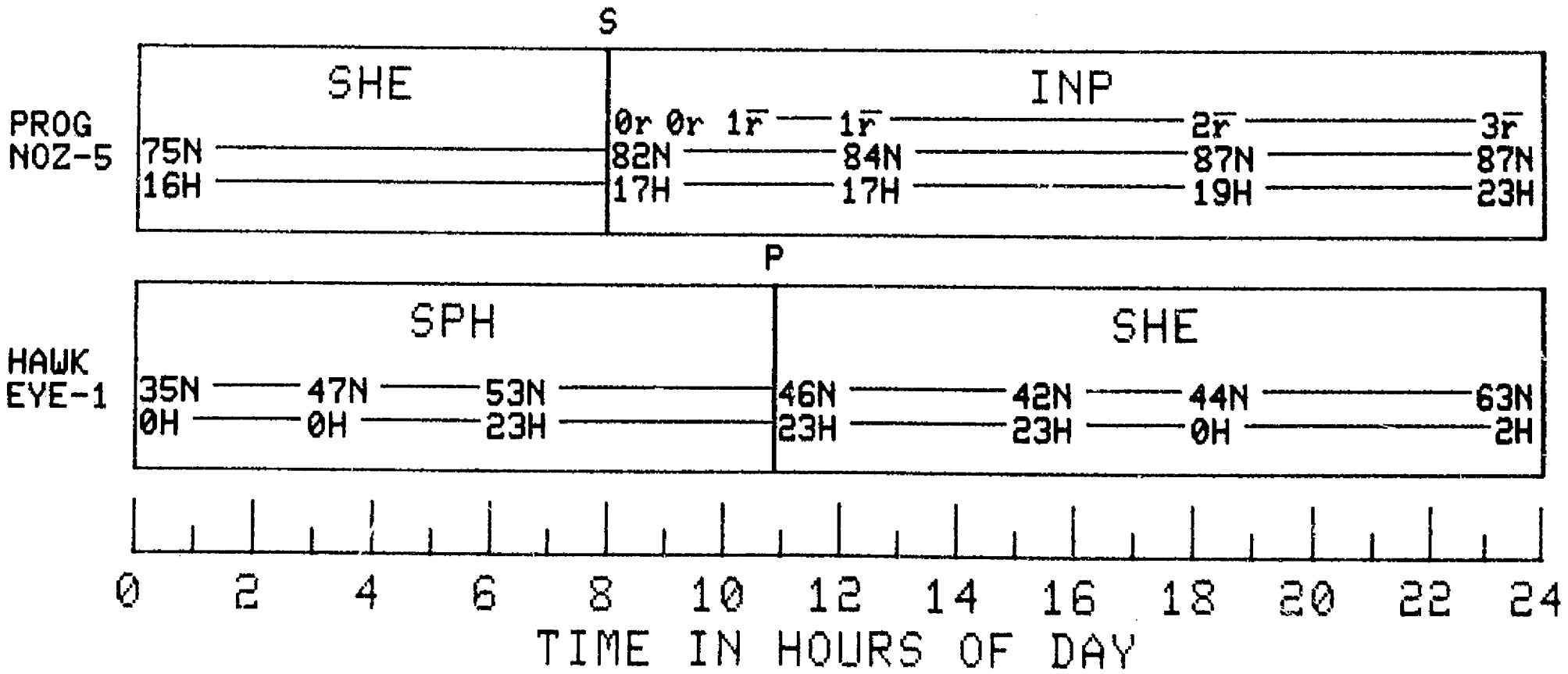
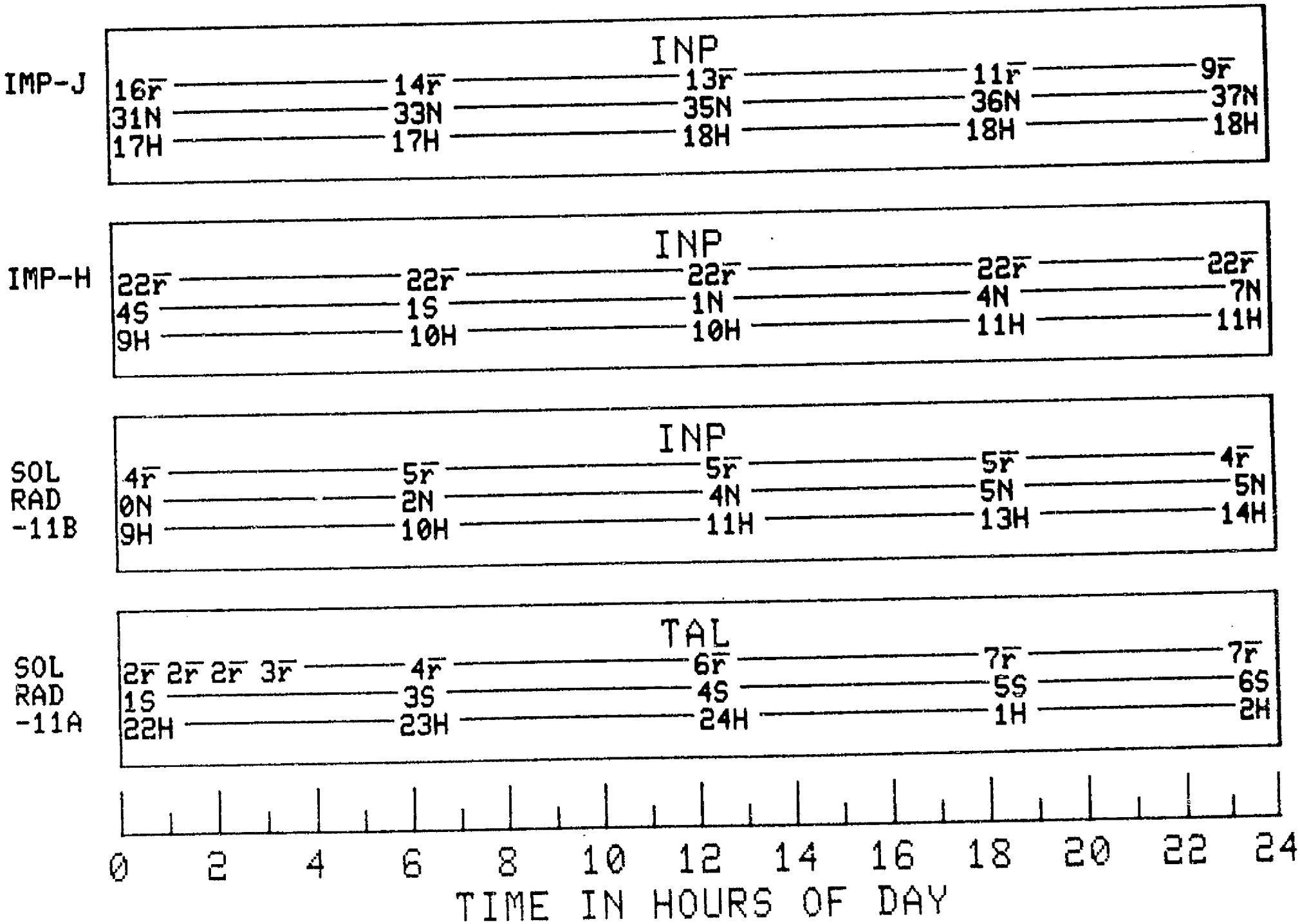
INP
20r 19r 18r 17r 16r
20N 23N 26N 29N 31N
15H 16H 16H 16H 17H
IMP-H
INP
20r 21r 22r 22r 22r
13S 11S 9S 7S 4S
8H 8H 9H 9H 9H
P
S
SOL RAD -11B
SHE
INP
8r 0r 0r 1r 2r 4r
5S 4S 3S 1S 0N
4H 6H 7H 8H 9H
P
SOL RAD -11A
SHE
SPH
TAL
5N 4N 2N 6r 3r 2r
17H 18H 19H 1N 1S
20H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

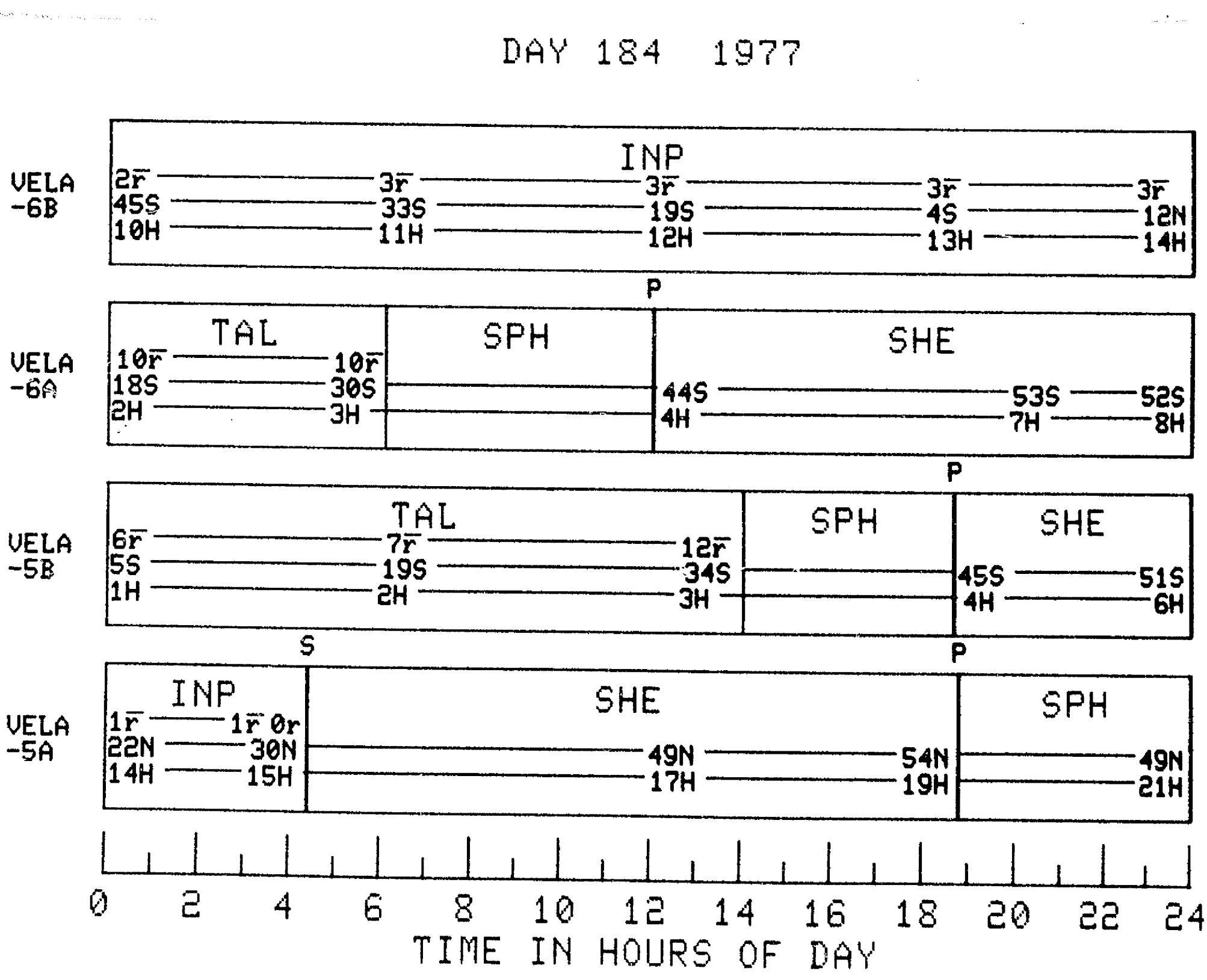

DAY 183 1977
P
S
VELA -6B
SPH
32S
3H
SHE
44S
5H
53S
7H
INP
0r 1r̄ 2r̄
51S 45S
9H 10H
VELA -6A
TAL
9r 6r 3r 2r 1r 0r 1r̄ 2r̄ 3r̄ 6r̄ 10r̄
40N 27N 13N 3S 18S
23H 24H 1H 1H 2H
VELA -5B
SPH
49N
21H
TAL
11r 8r 3r 2r 1r 0r 1r̄ 1r̄ 2r̄ 3r̄ 5r̄
46N 38N 25N 10N 5S
22H 23H 24H 1H 1H
VELA -5A
INP
3r̄ 3r̄ 3r̄ 3r̄ 2r̄
39S 26S 10S 6N 22N
11H 12H 13H 13H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 183 1977

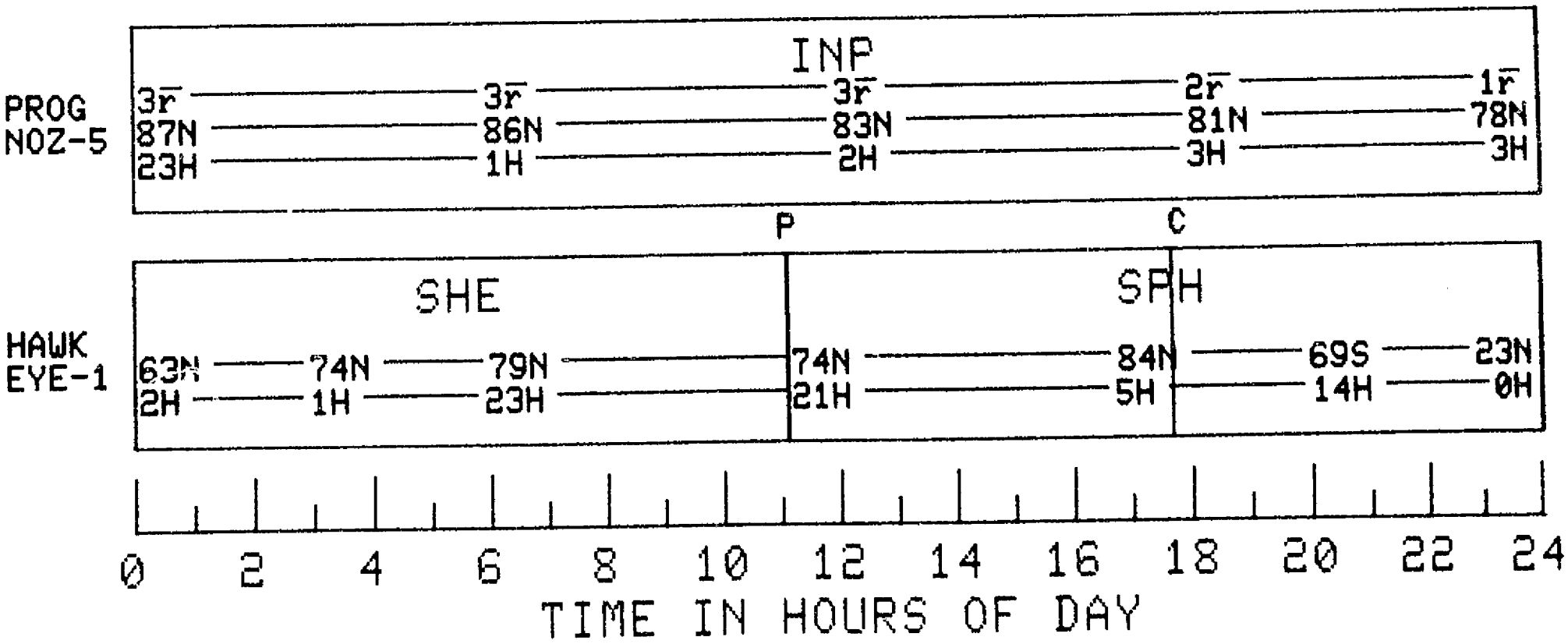

S
SHE
INP
PROG
NOZ-5
75N
16H
0r 0r 1r
82N
17H
1r
84N
17H
2r
87N
19H
3r
87N
23H
P
SPH
SHE
HAWK
EYE-1
35N
0H
47N
0H
53N
23H
46N
23H
42N
23H
44N
0H
63N
2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

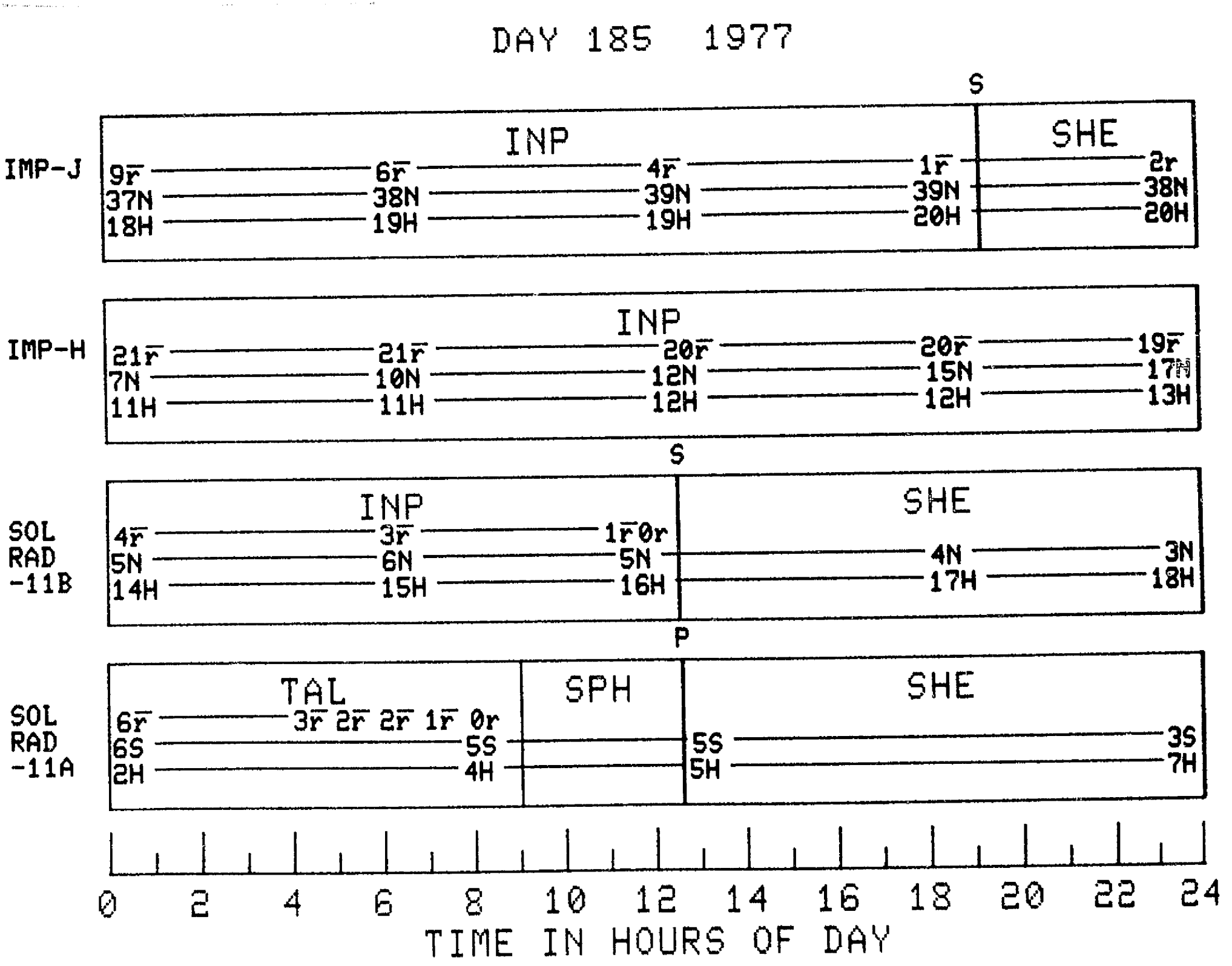
DAY 184 1977

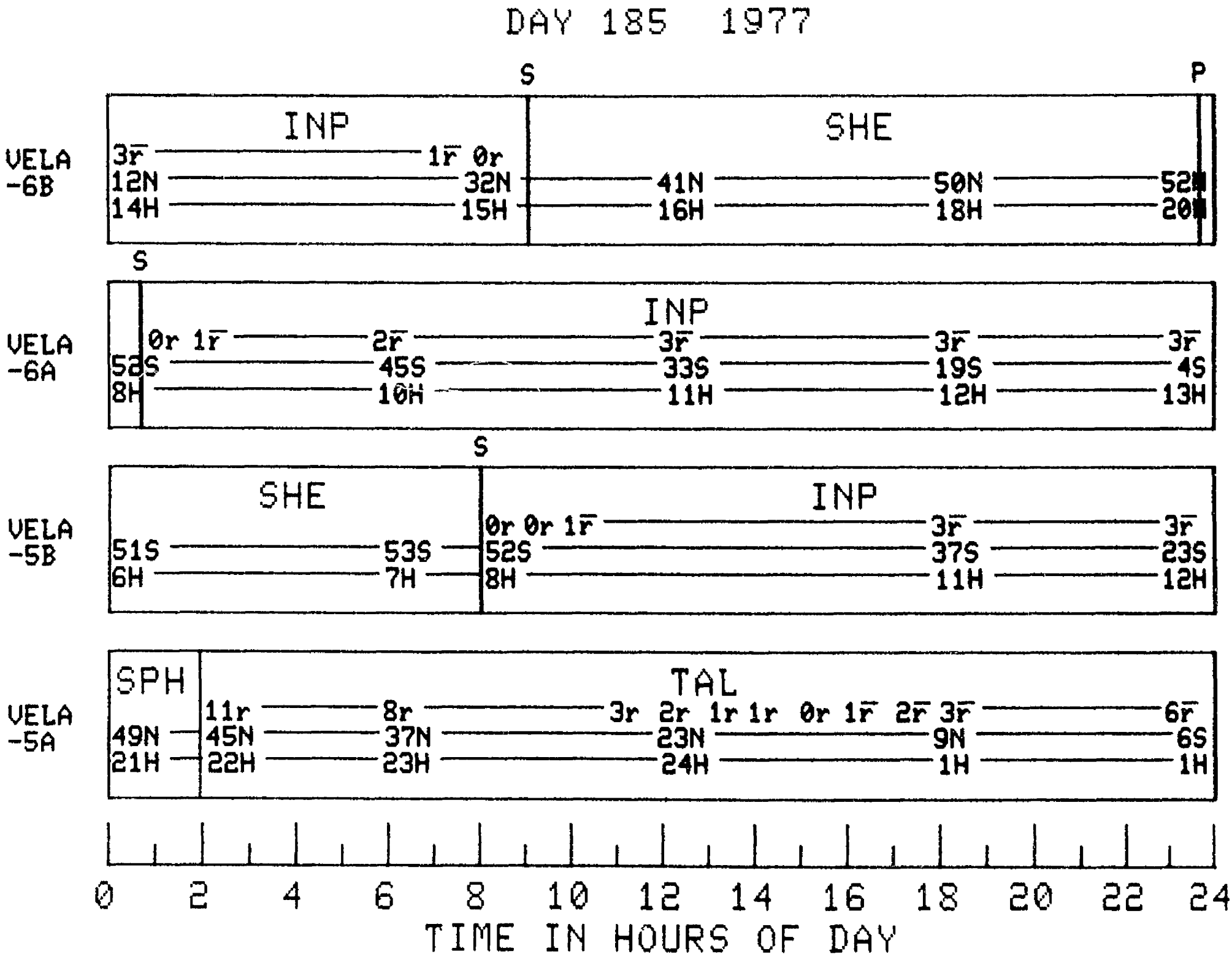

IMP-J
INP
16r 14r 13r 11r 9r
31N 33N 35N 36N 37N
17H 17H 18H 18H 18H
IMP-H
INP
22r 22r 22r 22r 22r
4S 1S 1N 4N 7N
9H 10H 10H 11H 11H
SOL RAD -11B
INP
4r 5r 5r 5r 4r
0N 2N 4N 5N 5N
9H 10H 11H 13H 14H
SOL RAD -11A
TAL
2r 2r 2r 3r 4r 6r 7r 7r
1S 3S 4S 5S 6S
22H 23H 24H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 184 1977
VELA -6B
INP
2r 3r 3r 3r 3r
45S 33S 19S 4S 12N
10H 11H 12H 13H 14H
P
VELA -6A
TAL
10r 10r
18S 30S
2H 3H
SPH
SHE
44S 53S 52S
4H 7H 8H
P
VELA -5B
TAL
6r 7r 12r
5S 19S 34S
1H 2H 3H
SPH
SHE
45S 51S
4H 6H
S
P
VELA -5A
INP
1r 1r 0r
22N 30N
14H 15H
SHE
49N 54N
17H 19H
SPH
49N
21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

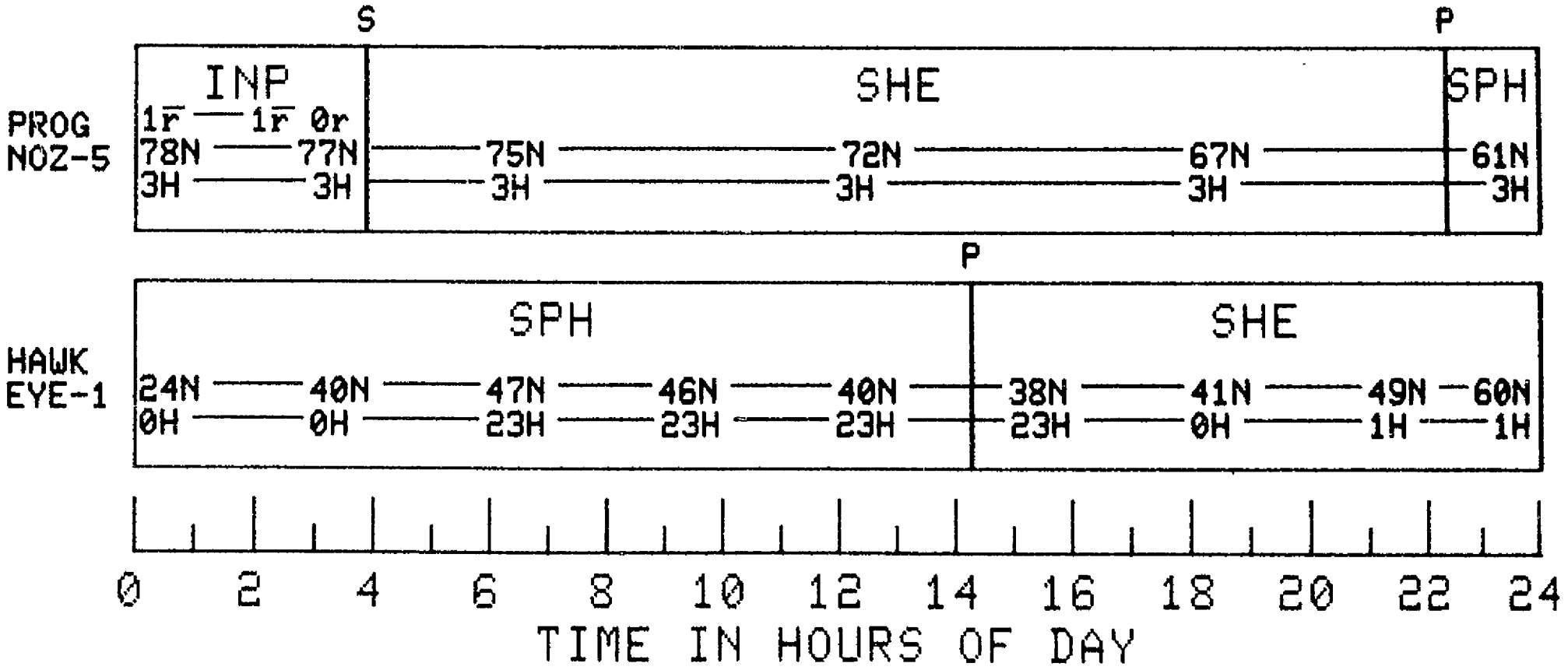
DAY 184 1977


INP
PROG
NOZ-5
3r̄
87N
23H
3r̄
86N
1H
3r̄
83N
2H
2r̄
81N
3H
1r̄
78N
3H
P
C
SHE
SPH
HAWK
EYE-1
63N
2H
74N
1H
79N
23H
74N
21H
84N
5H
69S
14H
23N
0H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

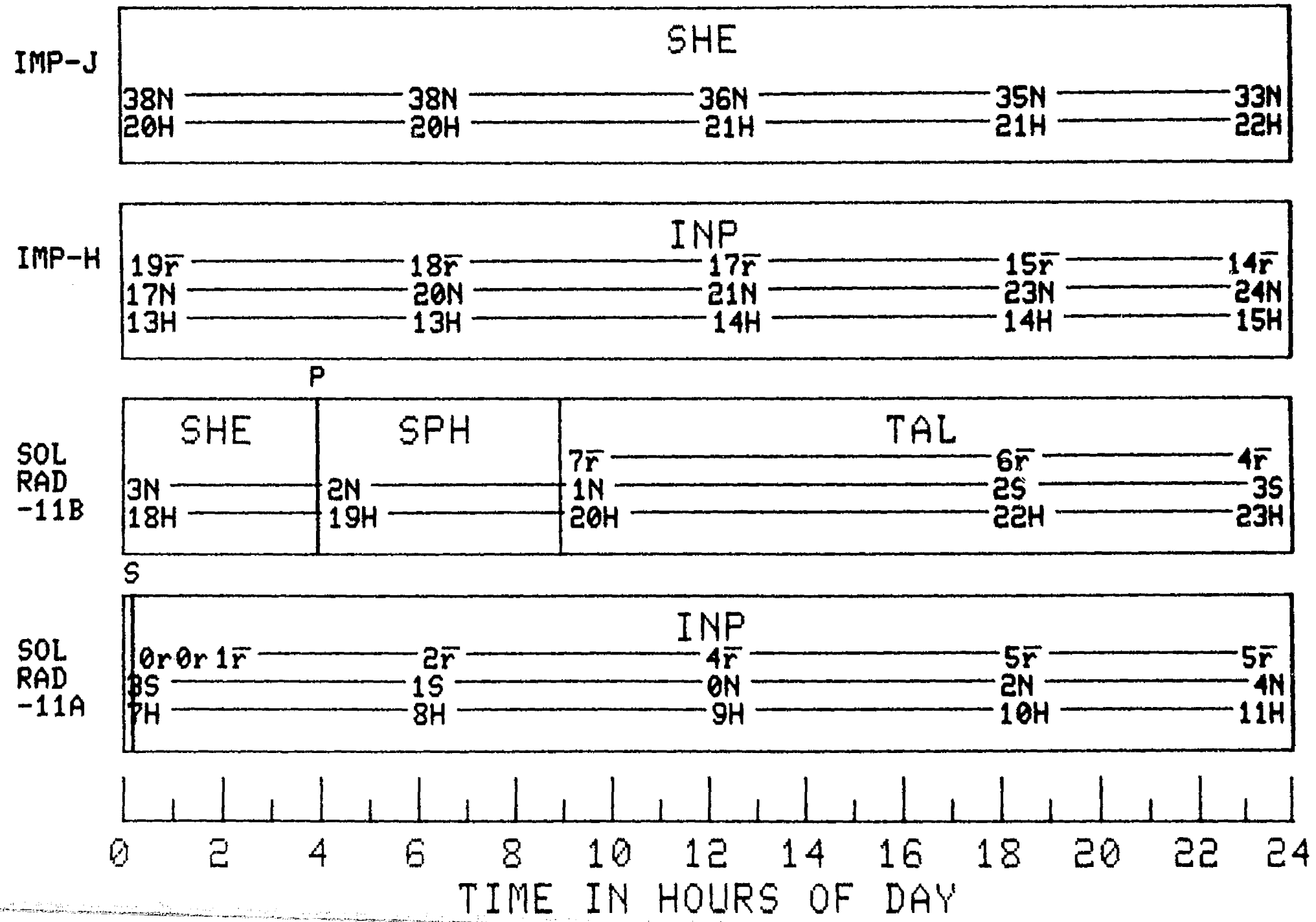

DAY 185 1977
S
IMP-J
INP
SHE
9r 6r 4r 1r 2r
37N 38N 39N 39N 38N
18H 19H 19H 20H 20H
IMP-H
INP
21r 21r 20r 20r 19r
7N 10N 12N 15N 17N
11H 11H 12H 12H 13H
S
SOL RAD -11B
INP
SHE
4r 3r 1r 0r
5N 6N 5N 4N 3N
14H 15H 16H 17H 18H
P
SOL RAD -11A
TAL
SPH
SHE
6r 3r 2r 2r 1r 0r
6S 5S 5S 3S
2H 4H 5H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 185 1977
S
P
INP
SHE
VELA -6B
3r̄ 1r̄ 0r
12N 32N 41N 50N 52
14H 15H 16H 18H 20
S
INP
VELA -6A
0r 1r̄ 2r̄ 3r̄ 3r̄ 3r̄
52S 45S 33S 19S 4S
8H 10H 11H 12H 13H
S
SHE
INP
VELA -5B
51S 53S
6H 7H
0r 0r 1r̄ 3r̄ 3r̄
52S 37S 23S
8H 11H 12H
SPH
TAL
VELA -5A
11r 8r 3r 2r 1r 1r 0r 1r̄ 2r̄ 3r̄ 6r̄
49N 45N 37N 23N 9N 6S
21H 22H 23H 24H 1H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

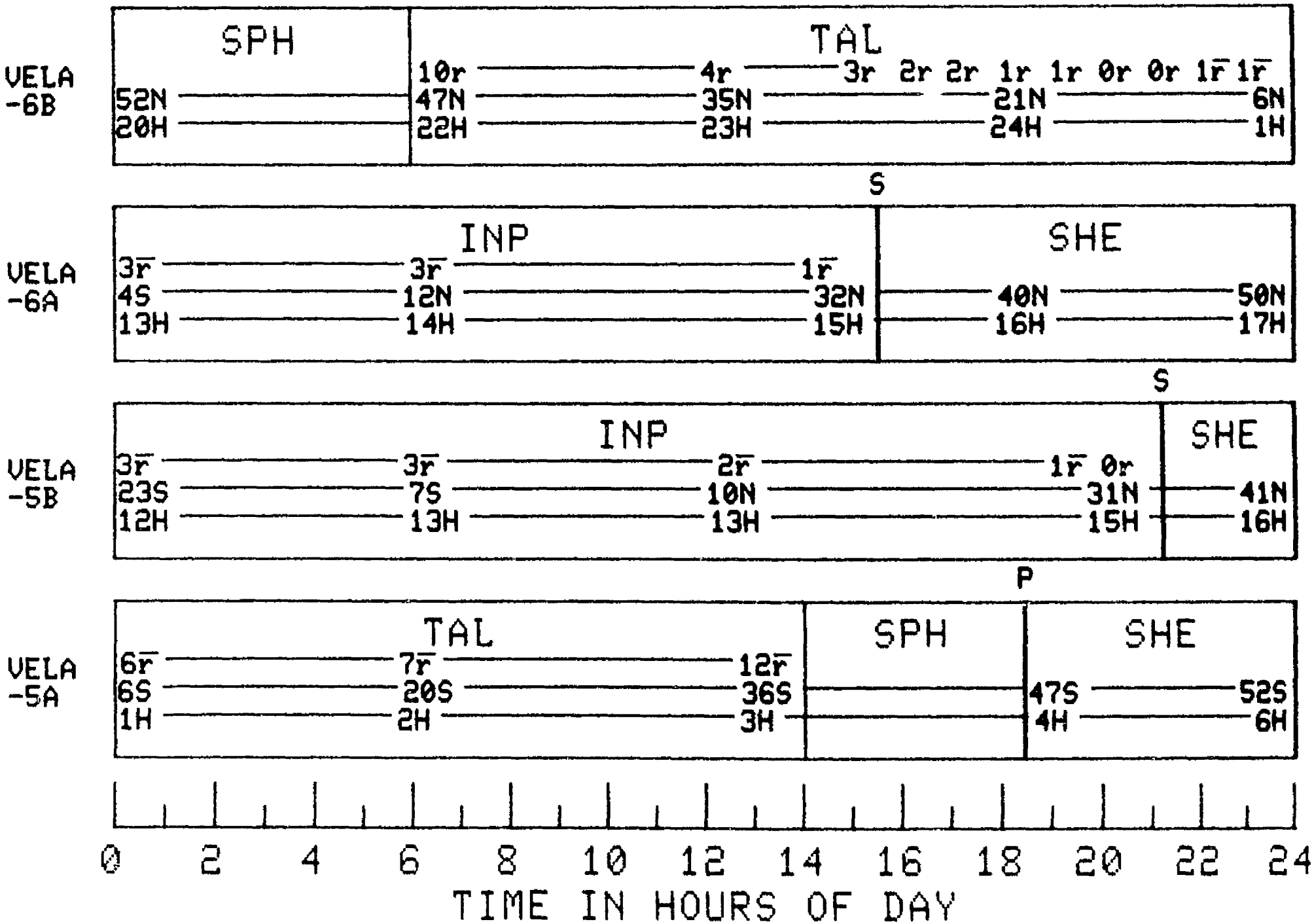
DAY 185 1977


S
P
INP
SHE
SPH
PROG
NOZ-5
1r 1r 0r
78N 77N 75N 72N 67N 61N
3H 3H 3H 3H 3H 3H
P
SPH
SHE
HAWK
EYE-1
24N 40N 47N 46N 40N 38N 41N 49N 60N
0H 0H 23H 23H 23H 23H 0H 1H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

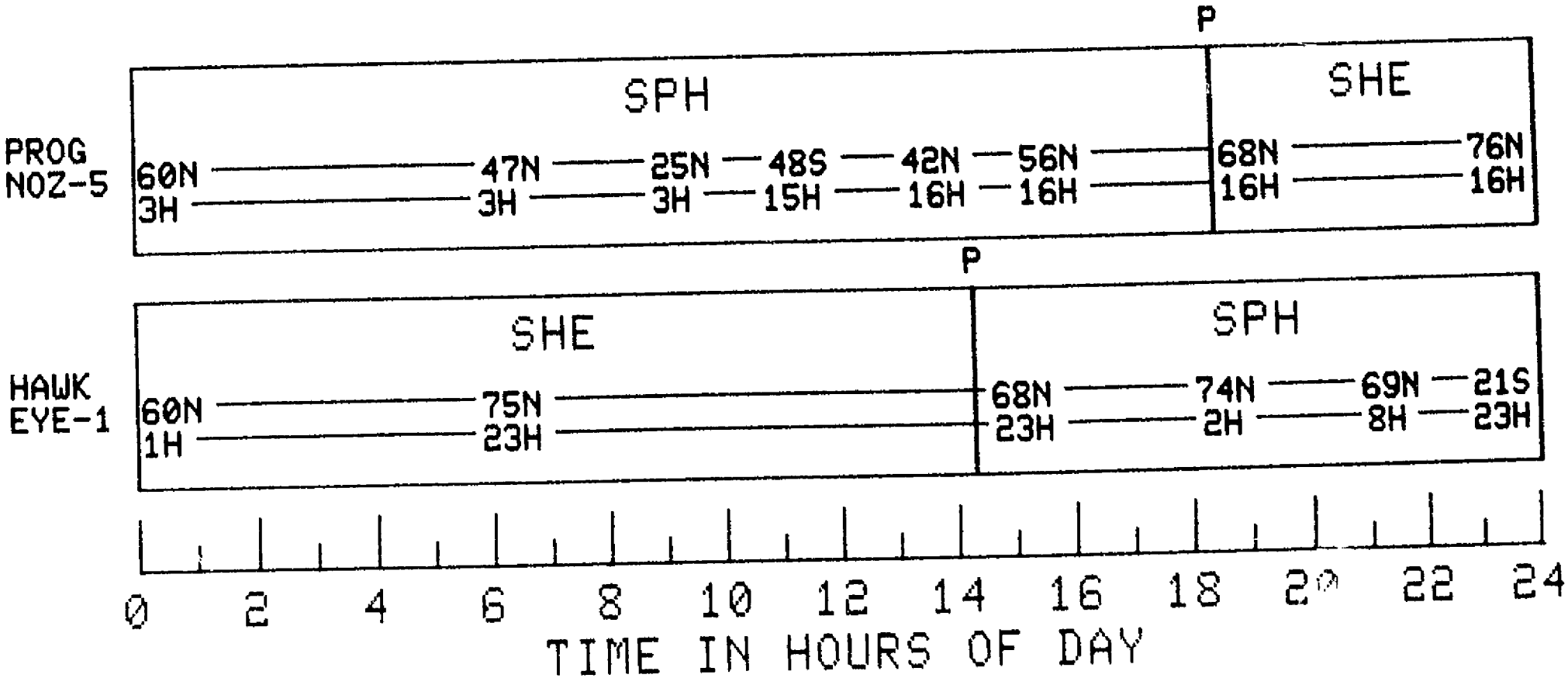
DAY 186 1977

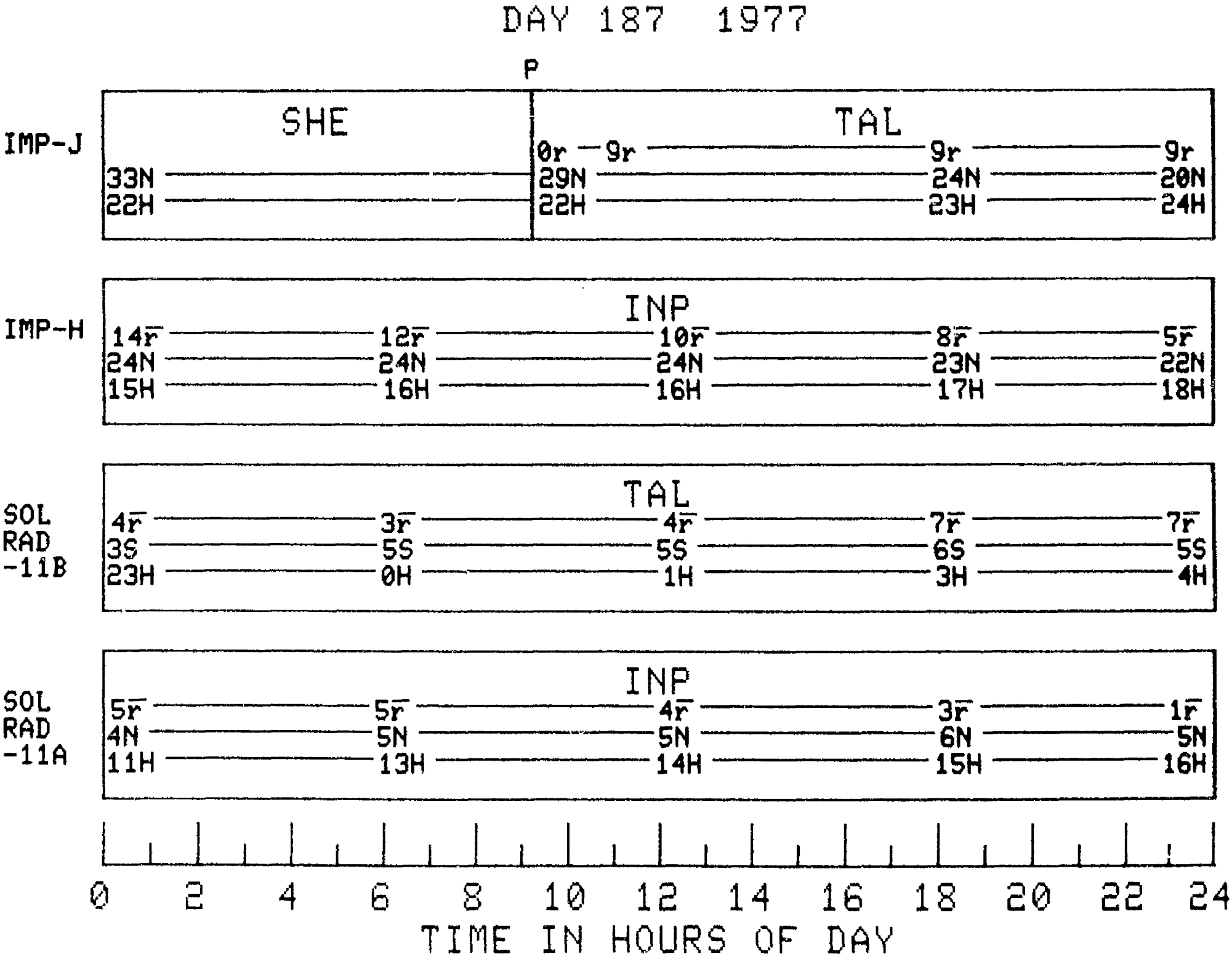

IMP-J
SHE
38N 38N 36N 35N 33N
20H 20H 21H 21H 22H
IMP-H
INP
19r 18r 17r 15r 14r
17N 20N 21N 23N 24N
13H 13H 14H 14H 15H
P
SOL RAD -11B
SHE
SPH
TAL
3N 2N 7r 6r 4r
18H 19H 1N 2S 3S
20H 22H 23H
S
SOL RAD -11A
INP
0r 0r 1r 2r 4r 5r 5r
8S 1S 0N 2N 4N
7H 8H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

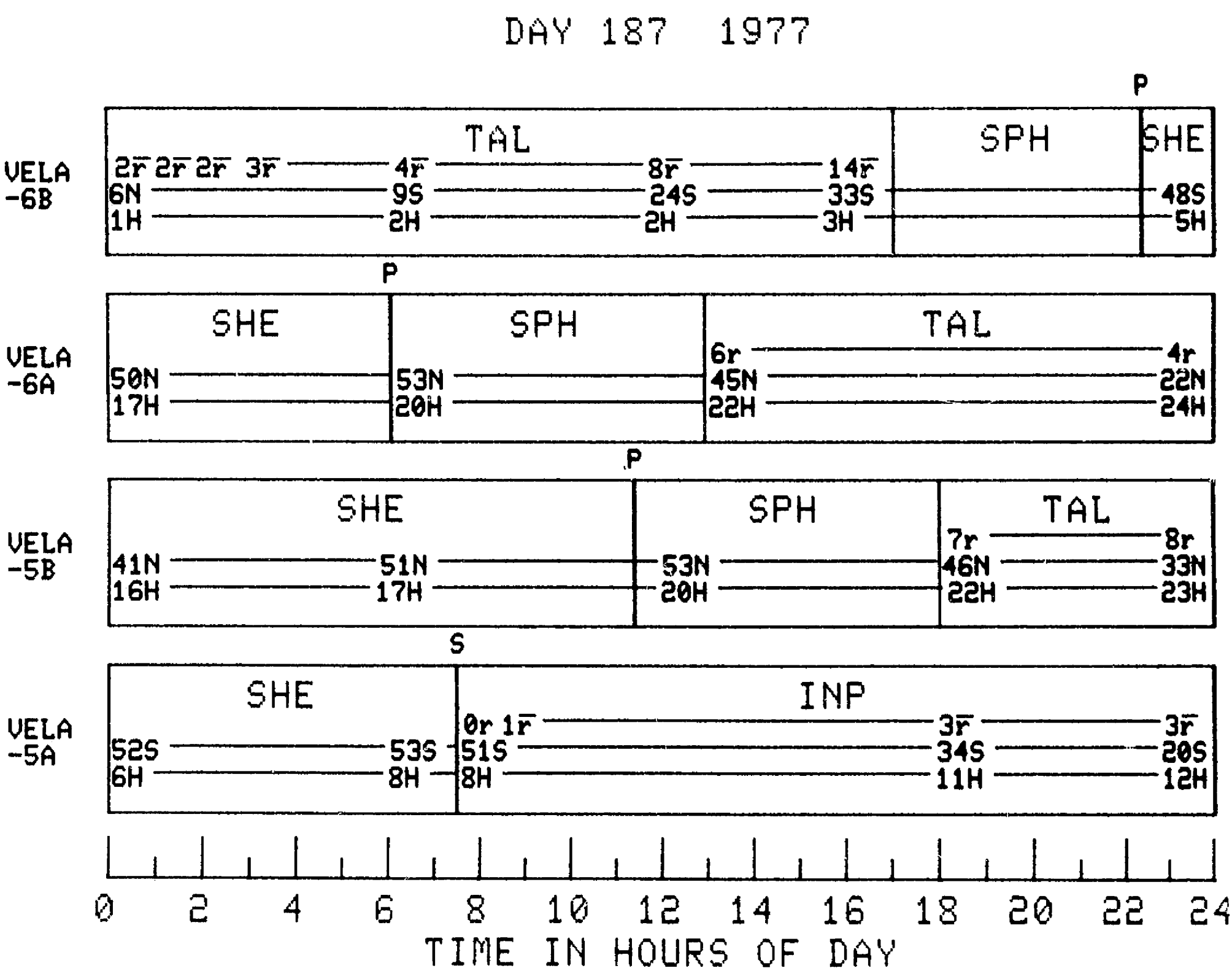
DAY 186 1977


VELA -6B
SPH
52N
20H
TAL
10r 4r 3r 2r 2r 1r 1r 0r 0r 1r̄ 1r̄
47N 35N 21N 6N
22H 23H 24H 1H
S
VELA -6A
INP
3r̄ 3r̄ 1r̄
4S 12N 32N
13H 14H 15H
SHE
40N 50N
16H 17H
S
VELA -5B
INP
3r̄ 3r̄ 2r̄ 1r̄ 0r
23S 7S 10N 31N
12H 13H 13H 15H
SHE
41N
16H
P
VELA -5A
TAL
6r̄ 7r̄ 12r̄
6S 20S 36S
1H 2H 3H
SPH
47S
4H
SHE
52S
6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

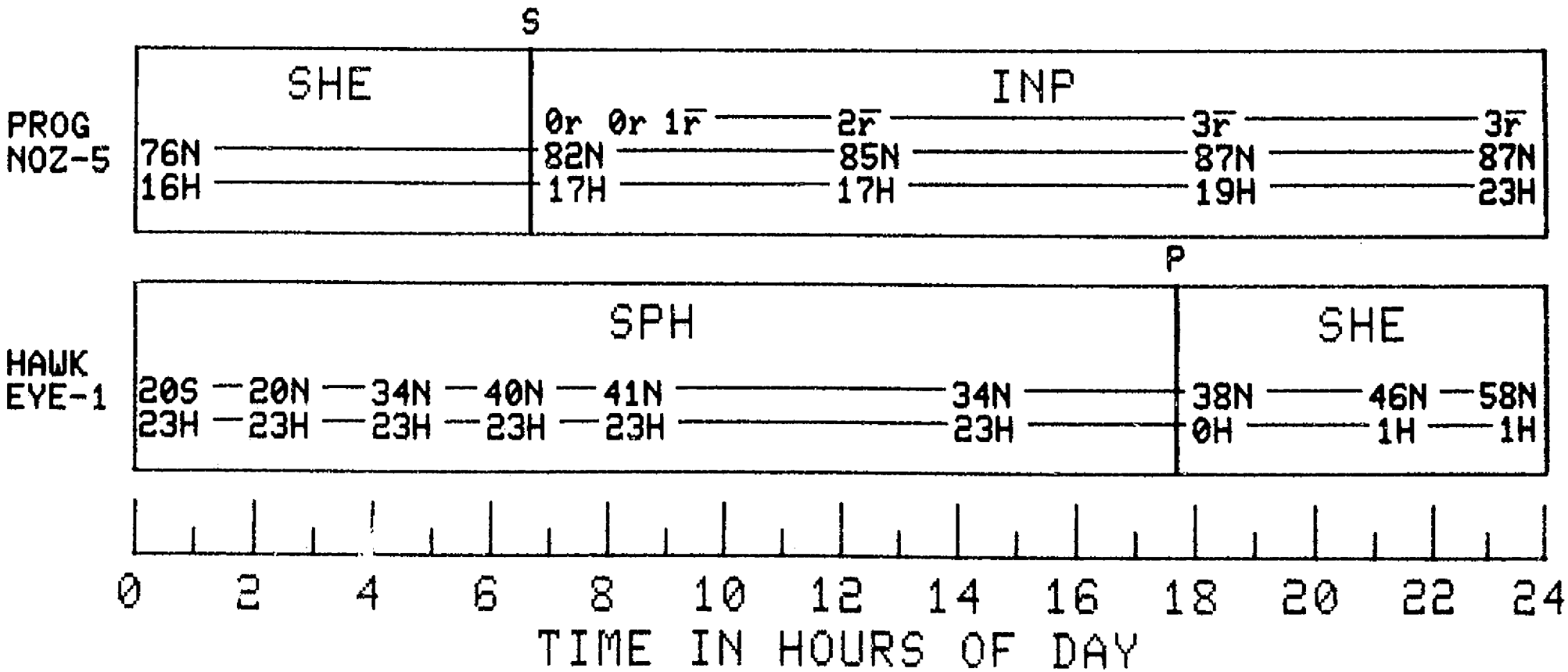
DAY 186 1977


P
SPH
SHE
PROG
NOZ-5
60N
3H
47N
3H
25N
3H
48S
15H
42N
16H
56N
16H
68N
16H
76N
16H
P
SHE
SPH
HAWK
EYE-1
60N
1H
75N
23H
68N
23H
74N
2H
69N
8H
21S
23H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

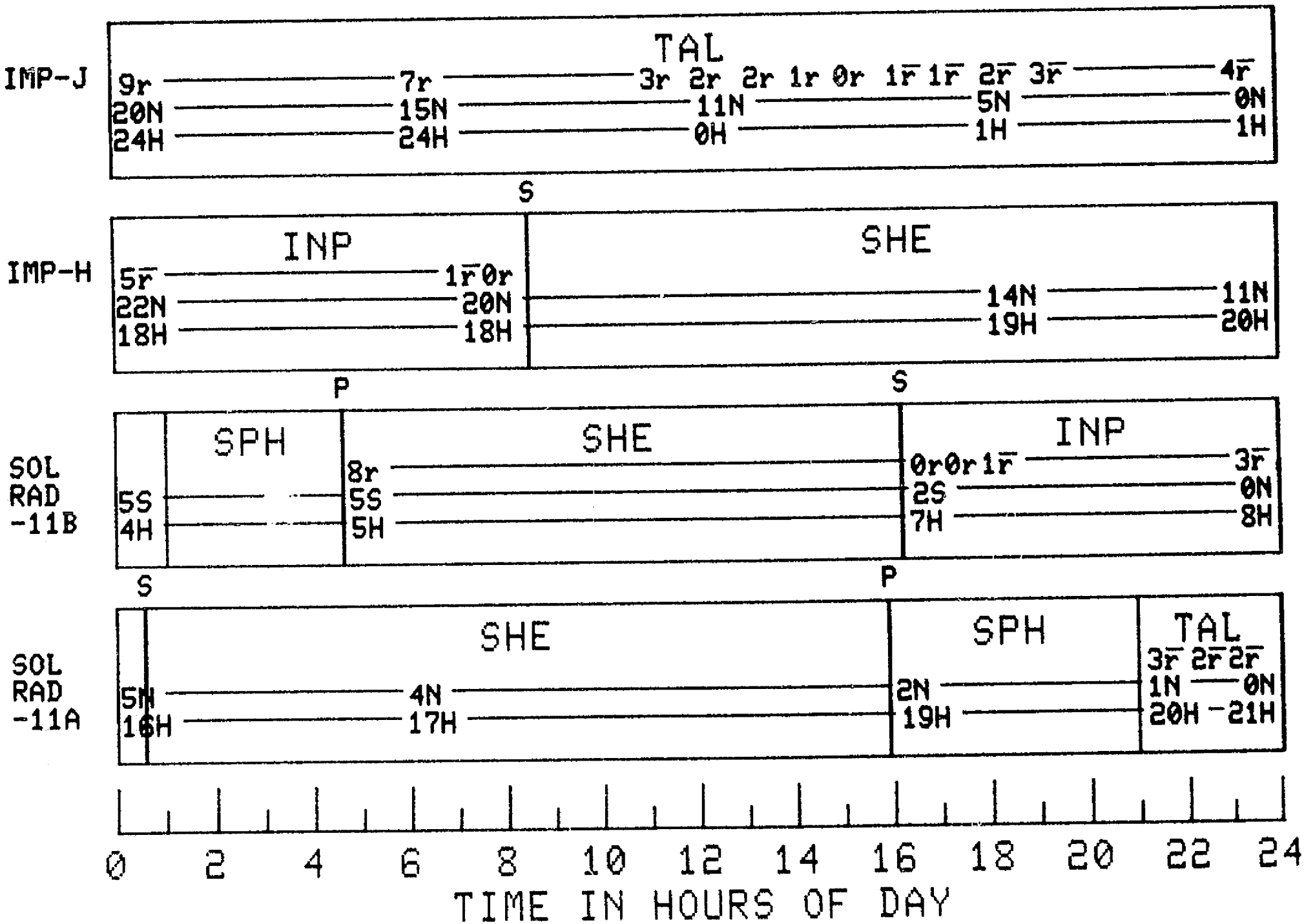

DAY 187 1977
P
IMP-J
SHE
TAL
33N 22H
0r 9r 9r 9r
29N 24N 20N
22H 23H 24H
IMP-H
INP
14r 12r 10r 8r 5r
24N 24N 24N 23N 22N
15H 16H 16H 17H 18H
SOL RAD -11B
TAL
4r 3r 4r 7r 7r
3S 5S 5S 6S 5S
23H 0H 1H 3H 4H
SOL RAD -11A
INP
5r 5r 4r 3r 1r
4N 5N 5N 6N 5N
11H 13H 14H 15H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

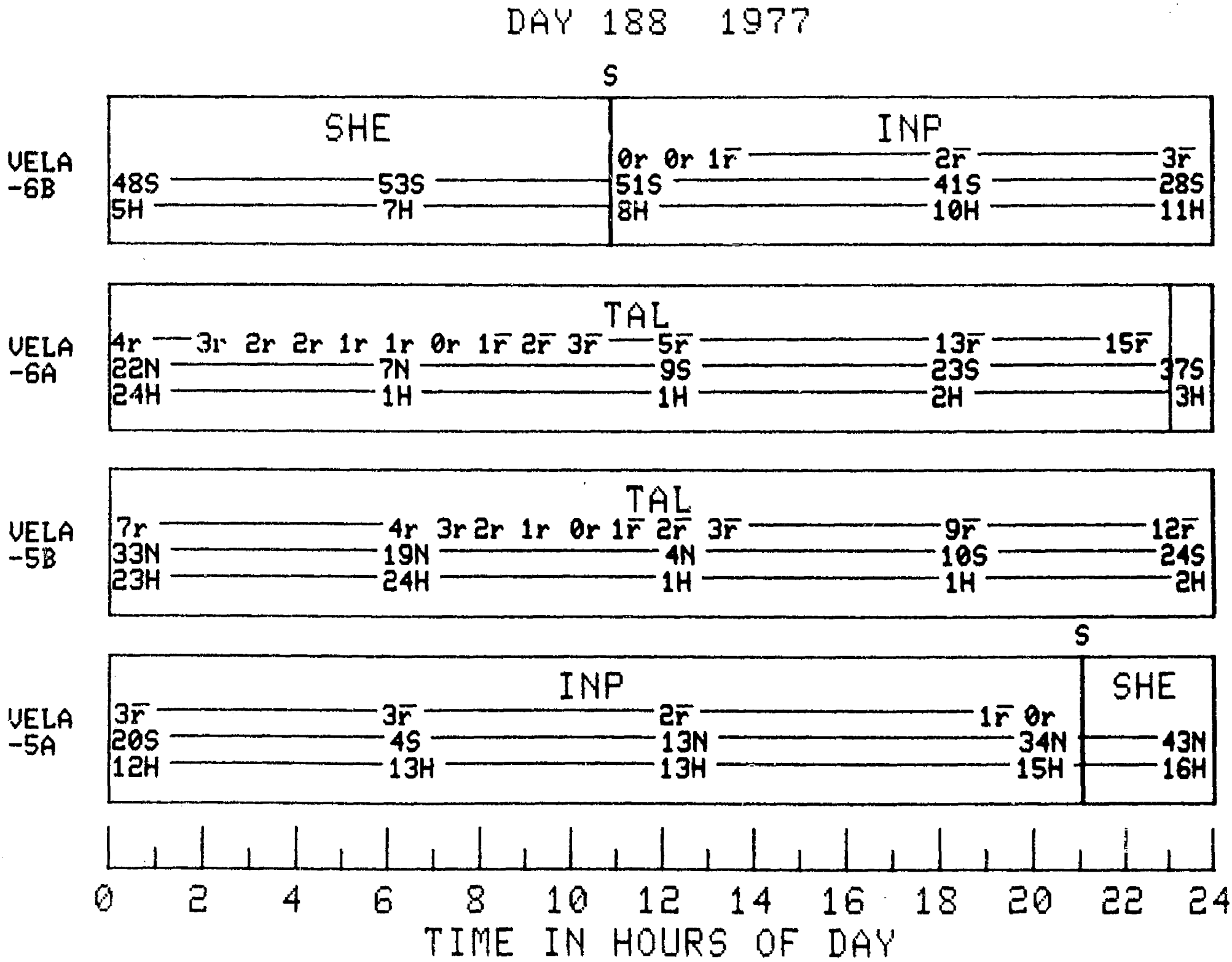

DAY 187 1977
VELA -6B
TAL
SPH
SHE
P
2r 2r 2r 3r 4r 8r 14r
6N 9S 24S 33S 48S
1H 2H 2H 3H 5H
VELA -6A
SHE
SPH
TAL
P
50N 53N 6r 4r
17H 20H 45N 22N
22H 24H
VELA -5B
SHE
SPH
TAL
P
41N 51N 53N 7r 8r
16H 17H 20H 46N 33N
22H 23H
VELA -5A
SHE
INP
S
52S 53S 0r 1r 3r 3r
6H 8H 51S 34S 20S
8H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 187 1977

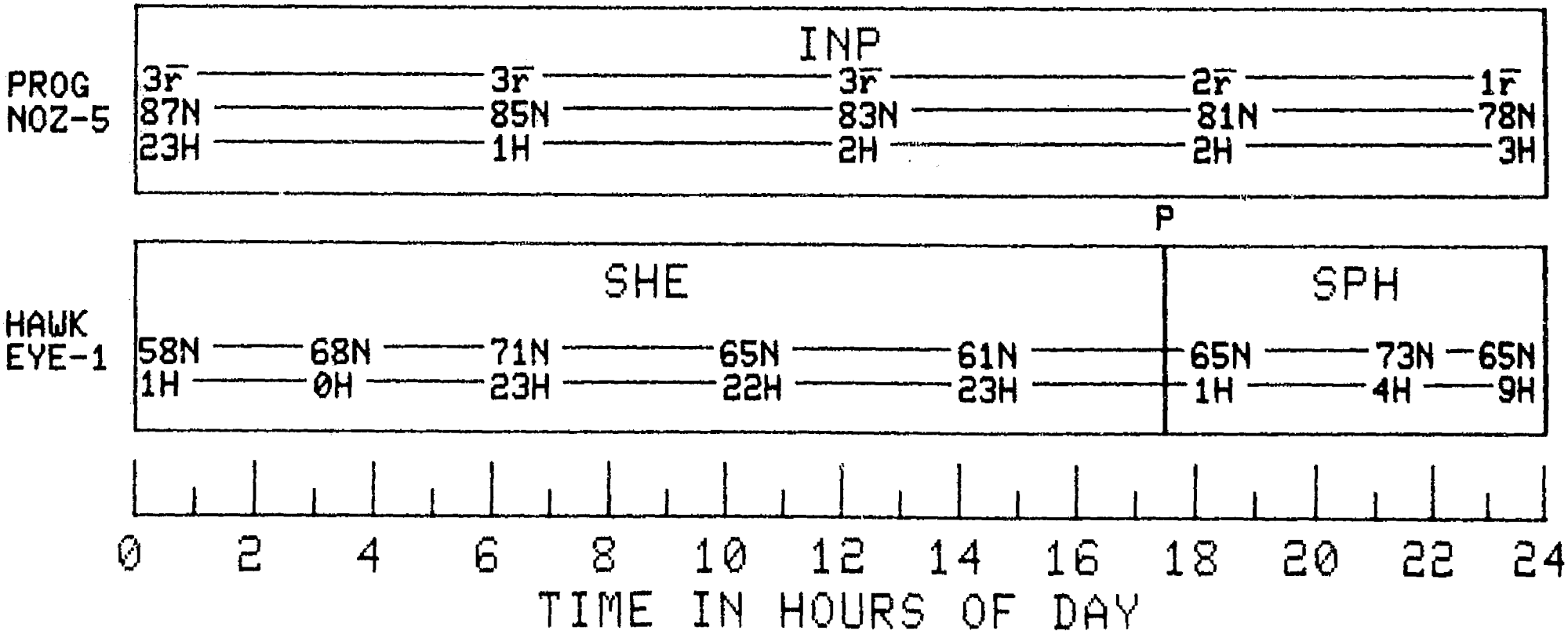

S
SHE
INP
PROG
NOZ-5
76N
16H
0r 0r 1r
82N
17H
2r
85N
17H
3r
87N
19H
3r
87N
23H
P
SPH
SHE
HAWK
EYE-1
20S 20N 34N 40N 41N 34N
23H 23H 23H 23H 23H 23H
38N 46N 58N
0H 1H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 188 1977

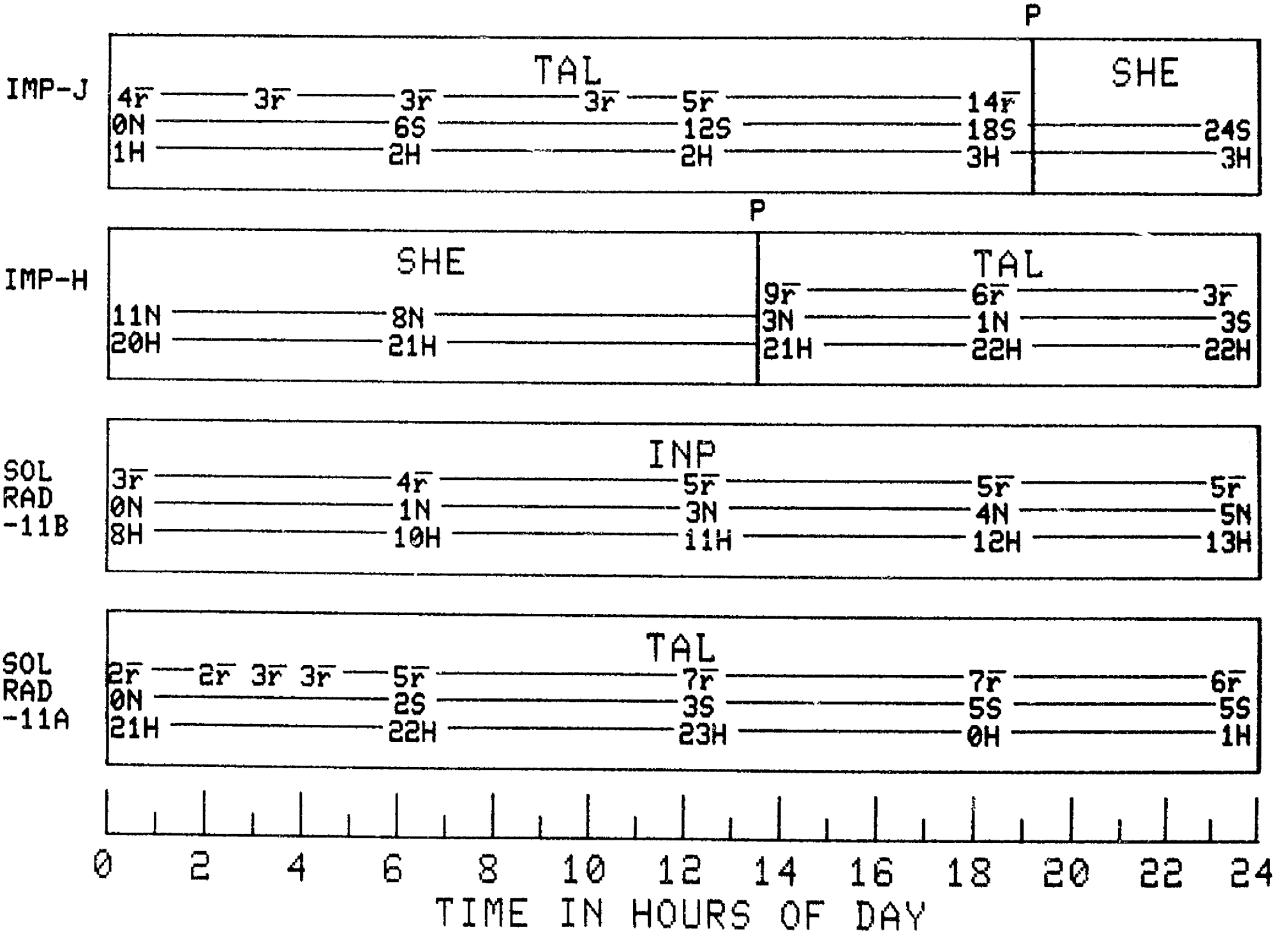

IMP-J
TAL
9r 7r 3r 2r 2r 1r 0r 1r̄ 1r̄ 2r̄ 3r̄ 4r̄
20N 15N 11N 5N 0N
24H 24H 0H 1H 1H
S
IMP-H
INP
SHE
5r̄ 1r̄ 0r
22N 20N
18H 18H
14N 11N
19H 20H
P
S
SOL RAD -11B
SPH
SHE
INP
5S 4H
8r 5S 5H
0r 0r 1r̄ 3r̄
2S 0N
7H 8H
S
P
SOL RAD -11A
SHE
SPH
TAL
5N 16H
4N 17H
2N 19H
3r̄ 2r̄ 2r̄
1N 0N
20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 188 1977
S
SHE
INP
VELA -6B
48S 53S 51S 41S 28S
5H 7H 8H 10H 11H
0r 0r 1r 2r 3r
TAL
VELA -6A
4r 3r 2r 2r 1r 1r 0r 1r 2r 3r 5r 13r 15r
22N 7N 9S 23S 37S
24H 1H 1H 2H 3H
TAL
VELA -5B
7r 4r 3r 2r 1r 0r 1r 2r 3r 9r 12r
33N 19N 4N 10S 24S
23H 24H 1H 1H 2H
S
INP
SHE
VELA -5A
3r 3r 2r 1r 0r
20S 4S 13N 34N 43N
12H 13H 13H 15H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

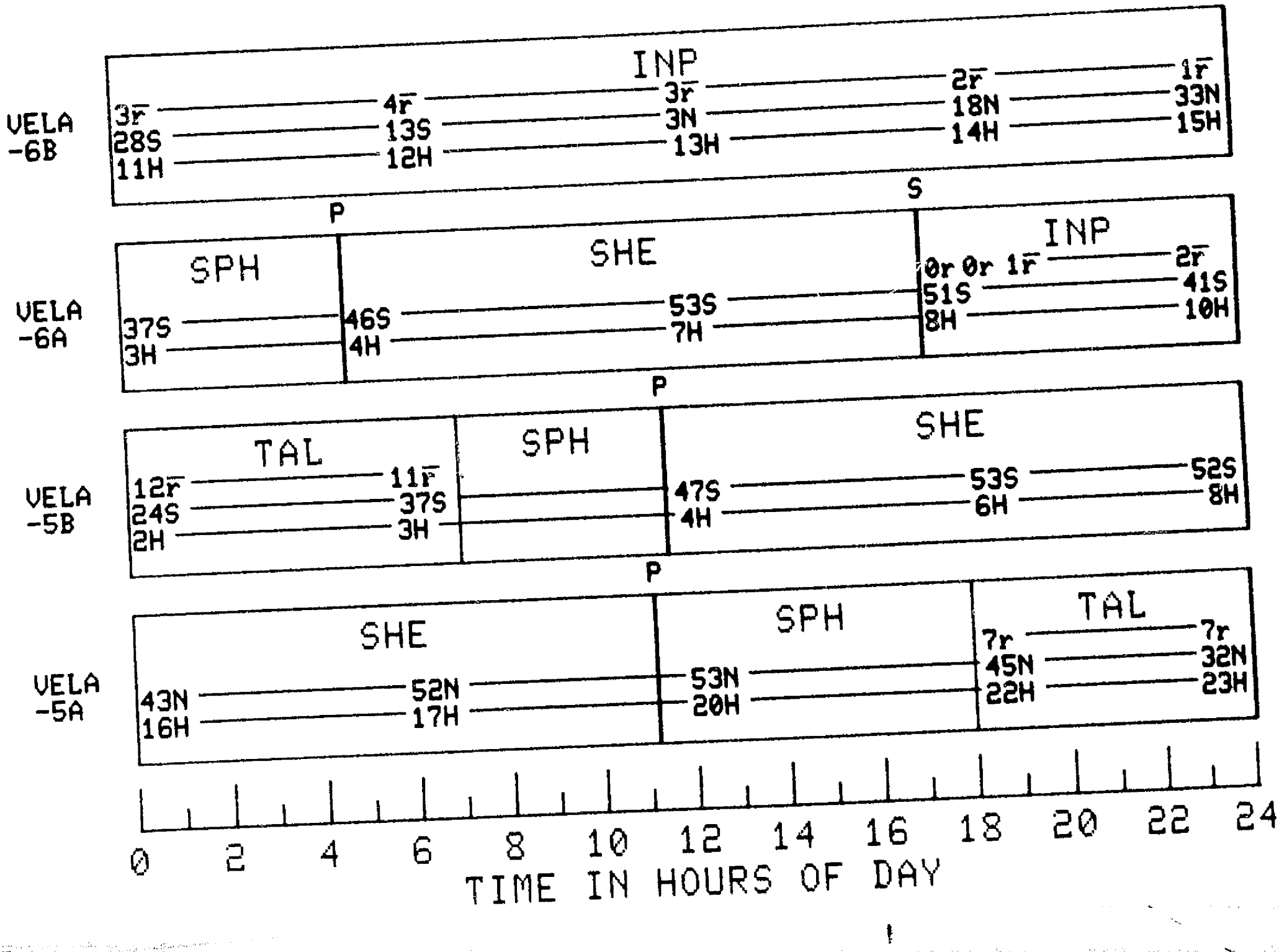
DAY 188 1977


INP
PROG
NOZ-5
3r̄ 87N 23H
3r̄ 85N 1H
3r̄ 83N 2H
2r̄ 81N 2H
1r̄ 78N 3H
P
SHE
SPH
HAWK
EYE-1
58N 1H
68N 0H
71N 23H
65N 22H
61N 23H
65N 1H
73N 4H
65N 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

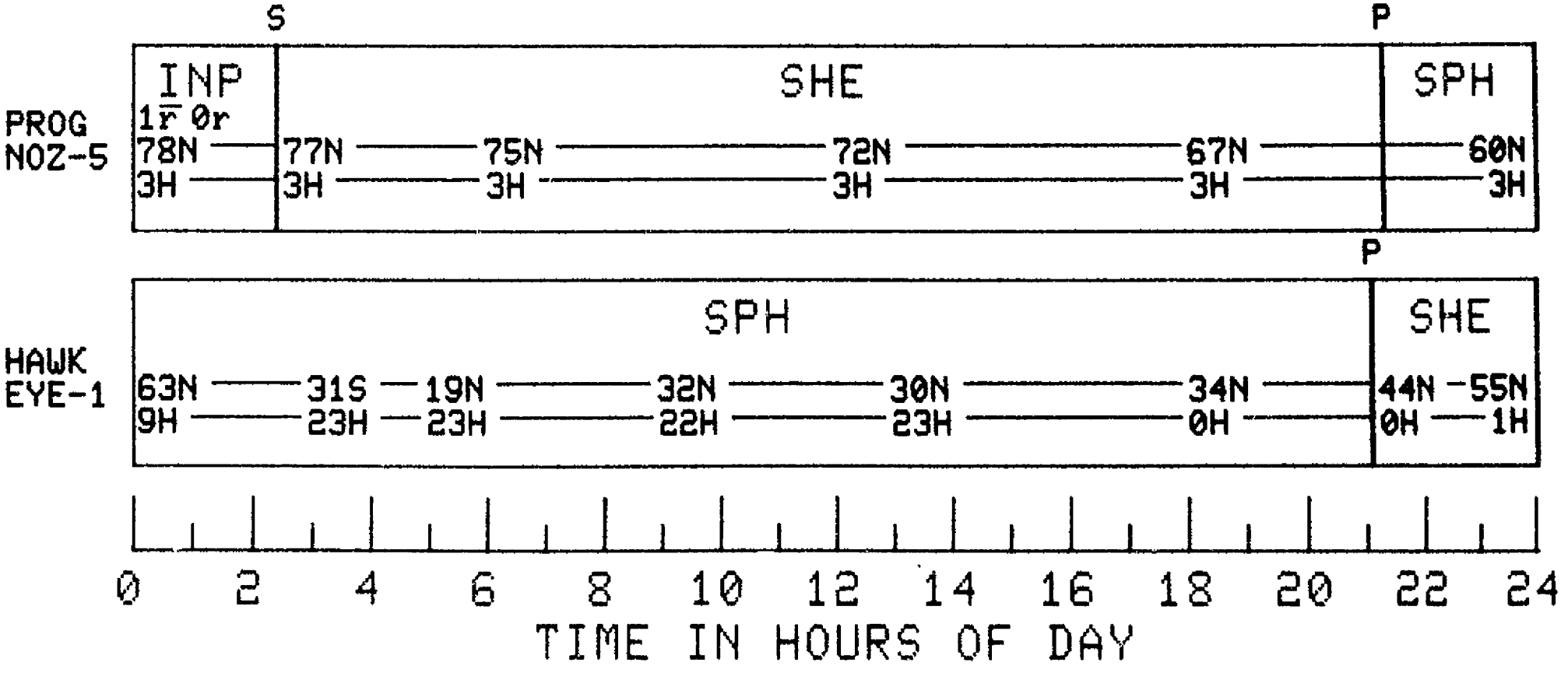
DAY 189 1977

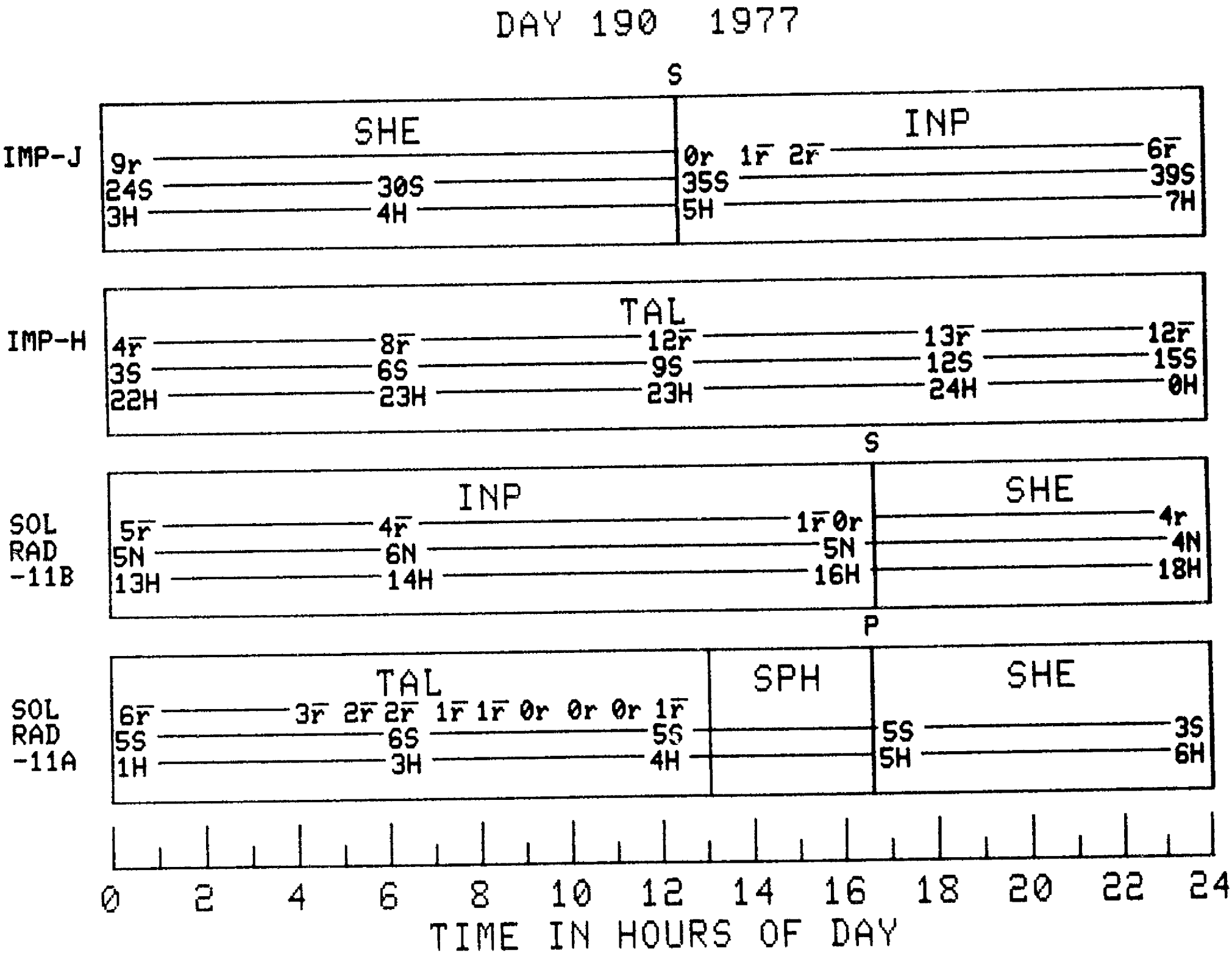

P
IMP-J
TAL
SHE
4r 3r 3r 3r 5r 14r
0N 6S 12S 18S 24S
1H 2H 2H 3H 3H
P
IMP-H
SHE
TAL
9r 6r 3r
11N 8N 3N 1N 3S
20H 21H 21H 22H 22H
SOL RAD -11B
INP
3r 4r 5r 5r 5r
0N 1N 3N 4N 5N
8H 10H 11H 12H 13H
SOL RAD -11A
TAL
2r 2r 3r 3r 5r 7r 7r 6r
0N 2S 3S 5S 5S
21H 22H 23H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

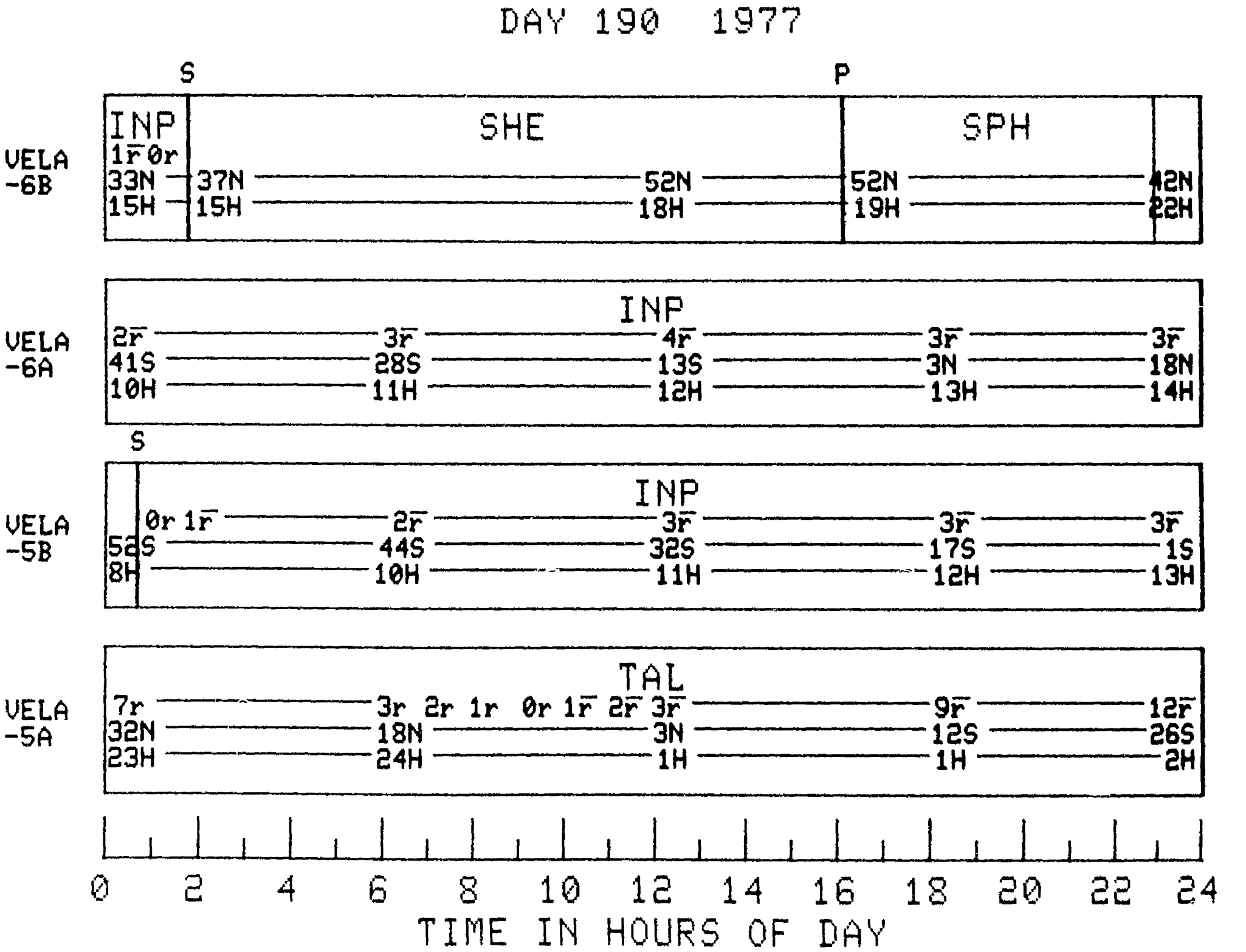
DAY 189 1977


VELA -6B
INP
3r̄ 28S 11H
4r̄ 13S 12H
3r̄ 3N 13H
2r̄ 18N 14H
1r̄ 33N 15H
VELA -6A
P
SPH
37S 3H
SHE
46S 4H
53S 7H
S
INP
0r 0r 1r̄ 51S 8H
2r̄ 41S 10H
VELA -5B
P
TAL
12r̄ 24S 2H
11r̄ 37S 3H
SPH
SHE
47S 4H
53S 6H
52S 8H
VELA -5A
P
SHE
43N 16H
52N 17H
SPH
53N 20H
TAL
7r 45N 22H
7r 32N 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

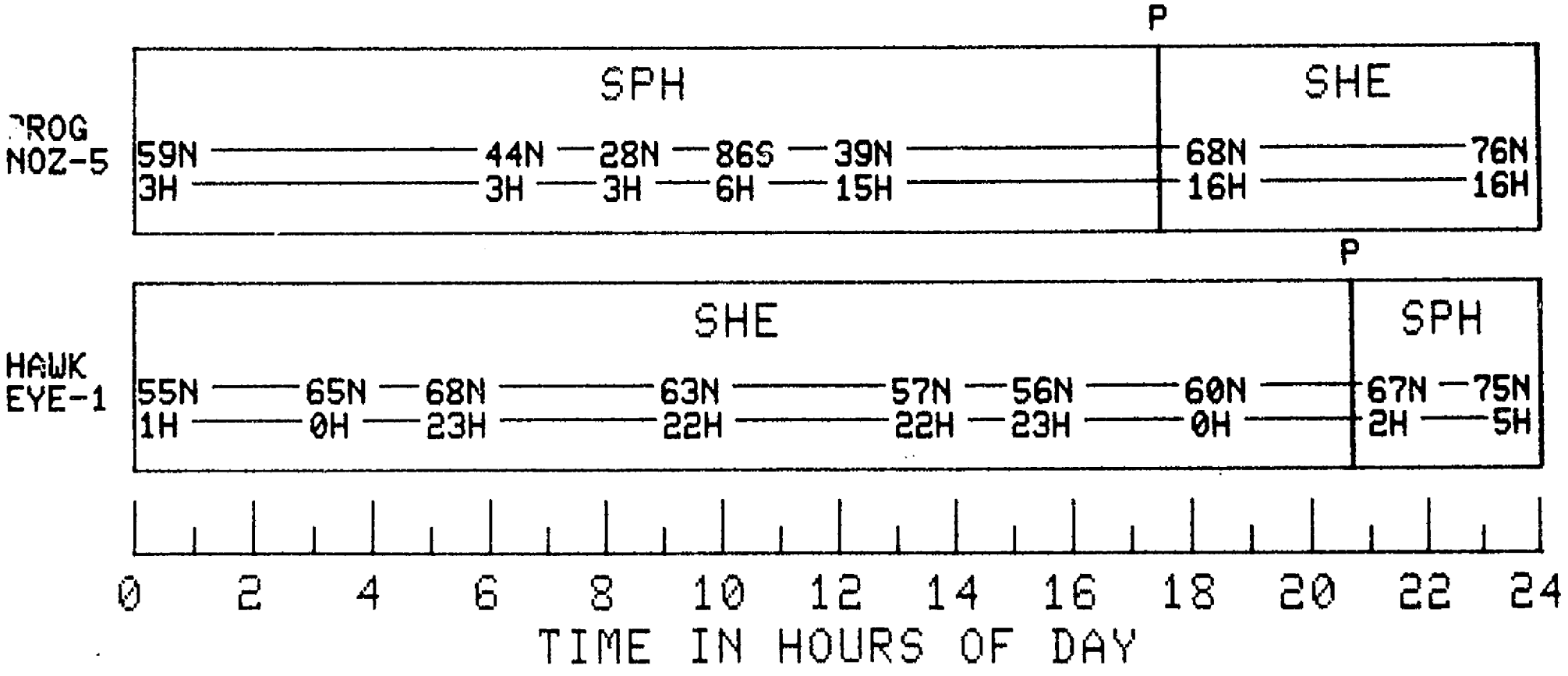
DAY 189 1977


S
P
INP
SHE
SPH
PROG
NOZ-5
1r̄ 0r
78N
77N
75N
72N
67N
60N
3H
3H
3H
3H
3H
3H
P
SPH
SHE
HAWK
EYE-1
63N
31S
19N
32N
30N
34N
44N
55N
9H
23H
23H
22H
23H
0H
0H
1H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

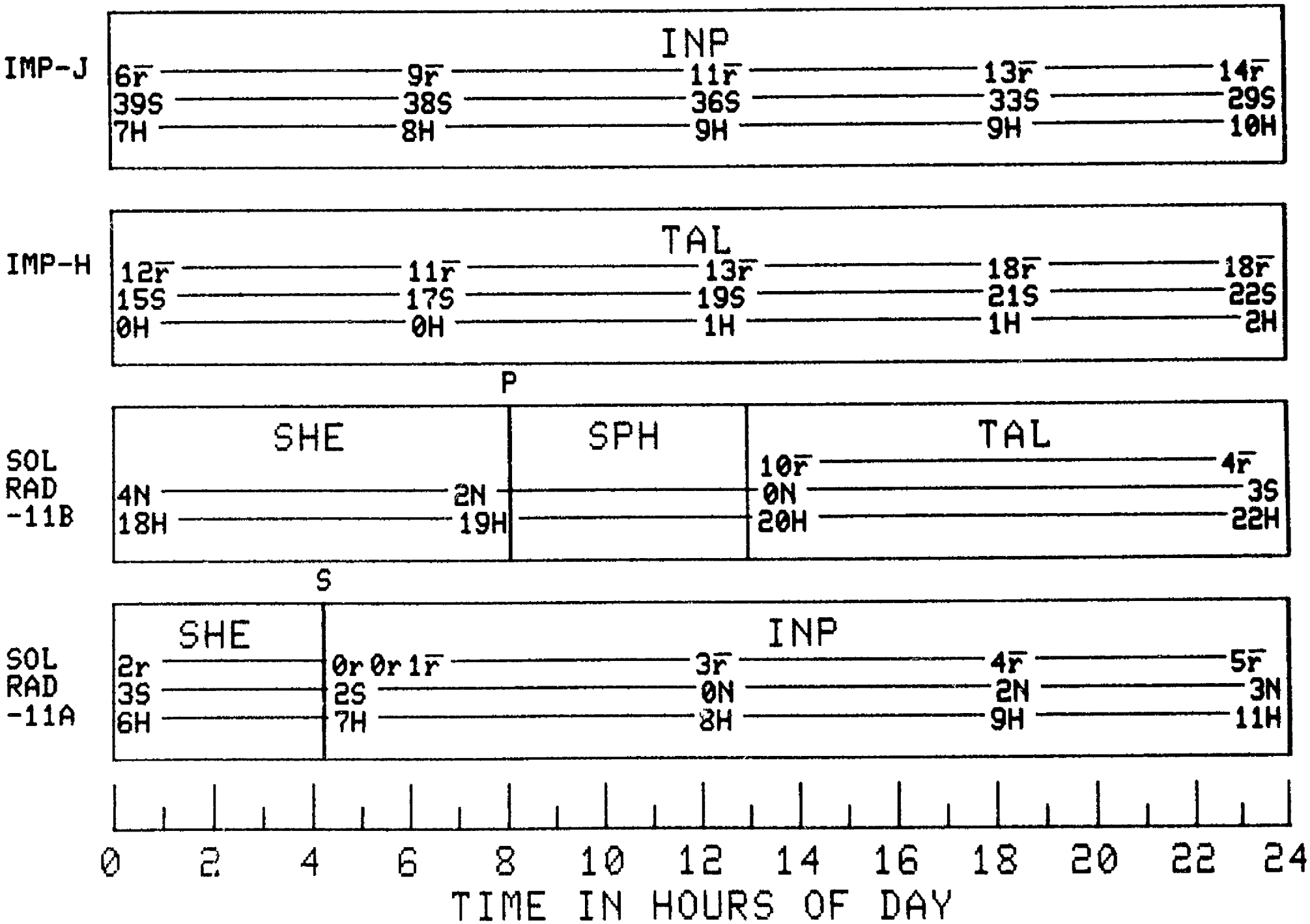

DAY 190 1977
S
SHE
INP
IMP-J
9r
24S
3H
30S
4H
0r 1r 2r
35S
5H
6r
39S
7H
TAL
IMP-H
4r 8r 12r 13r 12r
3S 6S 9S 12S 15S
22H 23H 23H 24H 0H
S
INP
SHE
SOL RAD -11B
5r 4r 1r 0r 4r
5N 6N 5N 4N
13H 14H 16H 18H
P
TAL
SPH
SHE
SOL RAD -11A
6r 3r 2r 2r 1r 1r 0r 0r 0r 1r
5S 6S 5S 5S 3S
1H 3H 4H 5H 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 190 1977
S
P
INP
SHE
SPH
VELA -6B
1r 0r
33N 37N 52N 52N 42N
15H 15H 18H 19H 22H
INP
VELA -6A
2r 3r 4r 3r 3r
41S 28S 13S 3N 18N
10H 11H 12H 13H 14H
S
INP
VELA -5B
0r 1r 2r 3r 3r 3r
5aS 44S 32S 17S 1S
8H 10H 11H 12H 13H
TAL
VELA -5A
7r 3r 2r 1r 0r 1r 2r 3r 9r 12r
32N 18N 3N 12S 26S
23H 24H 1H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

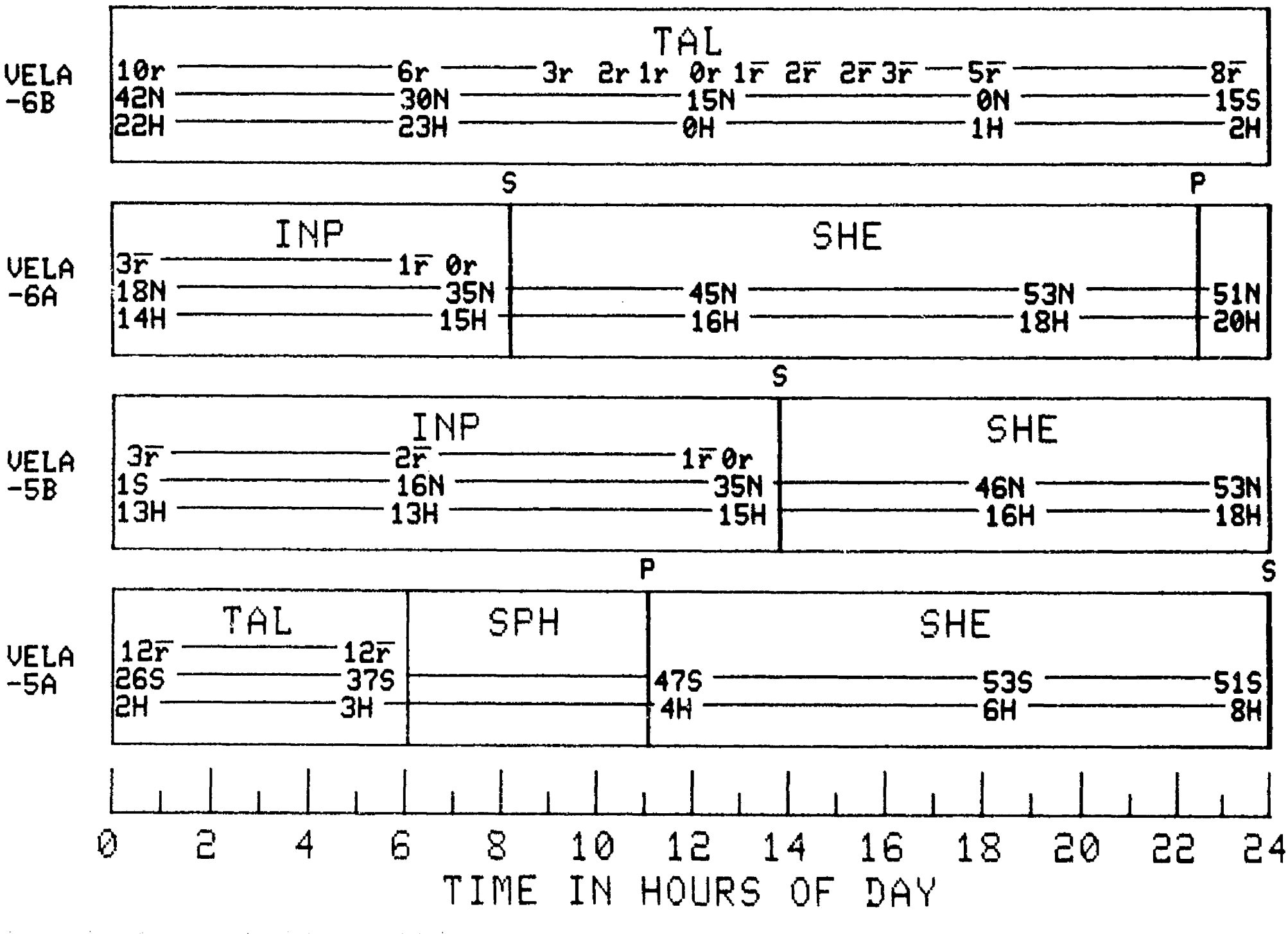
DAY 190 1977


P
SPH
SHE
PROG
NOZ-5
59N 44N 28N 86S 39N 68N 76N
3H 3H 3H 6H 15H 16H 16H
P
SHE
SPH
HAWK
EYE-1
55N 65N 68N 63N 57N 56N 60N 67N 75N
1H 0H 23H 22H 22H 23H 0H 2H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

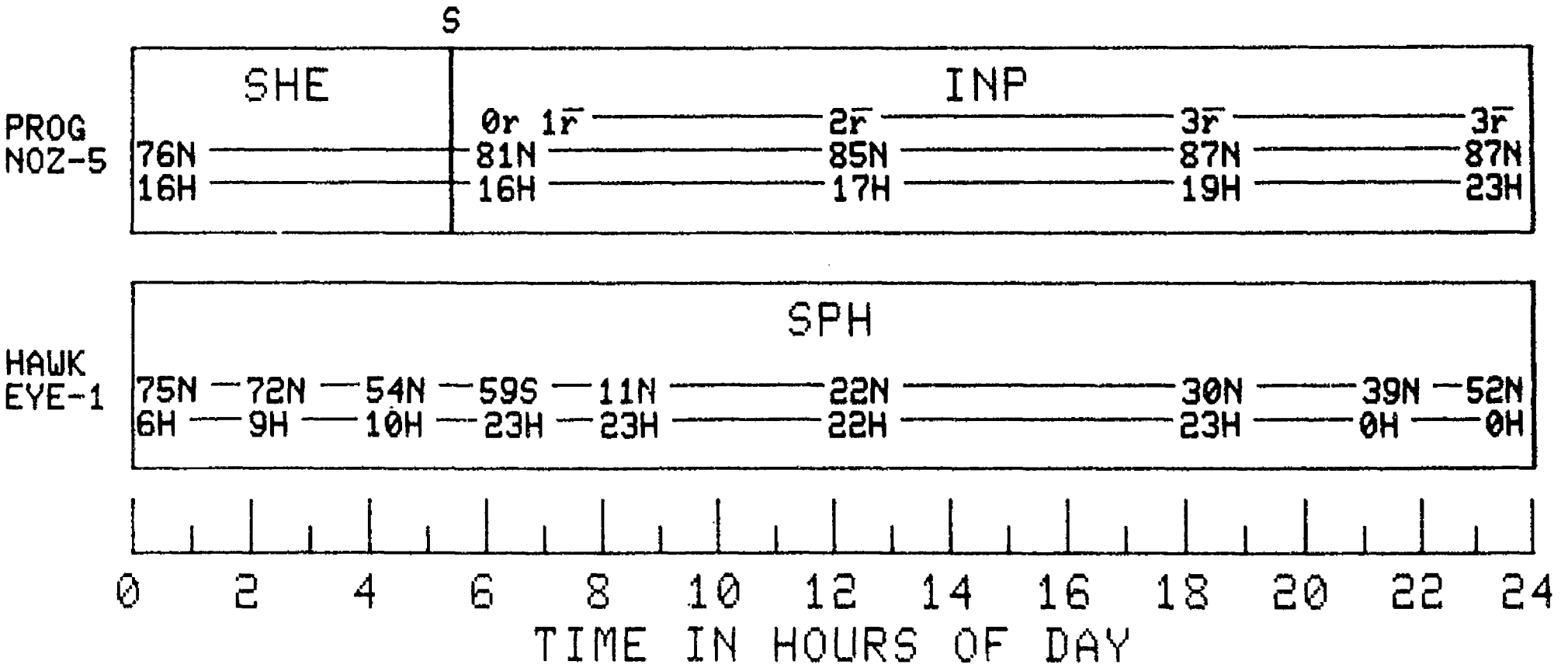
DAY 191 1977

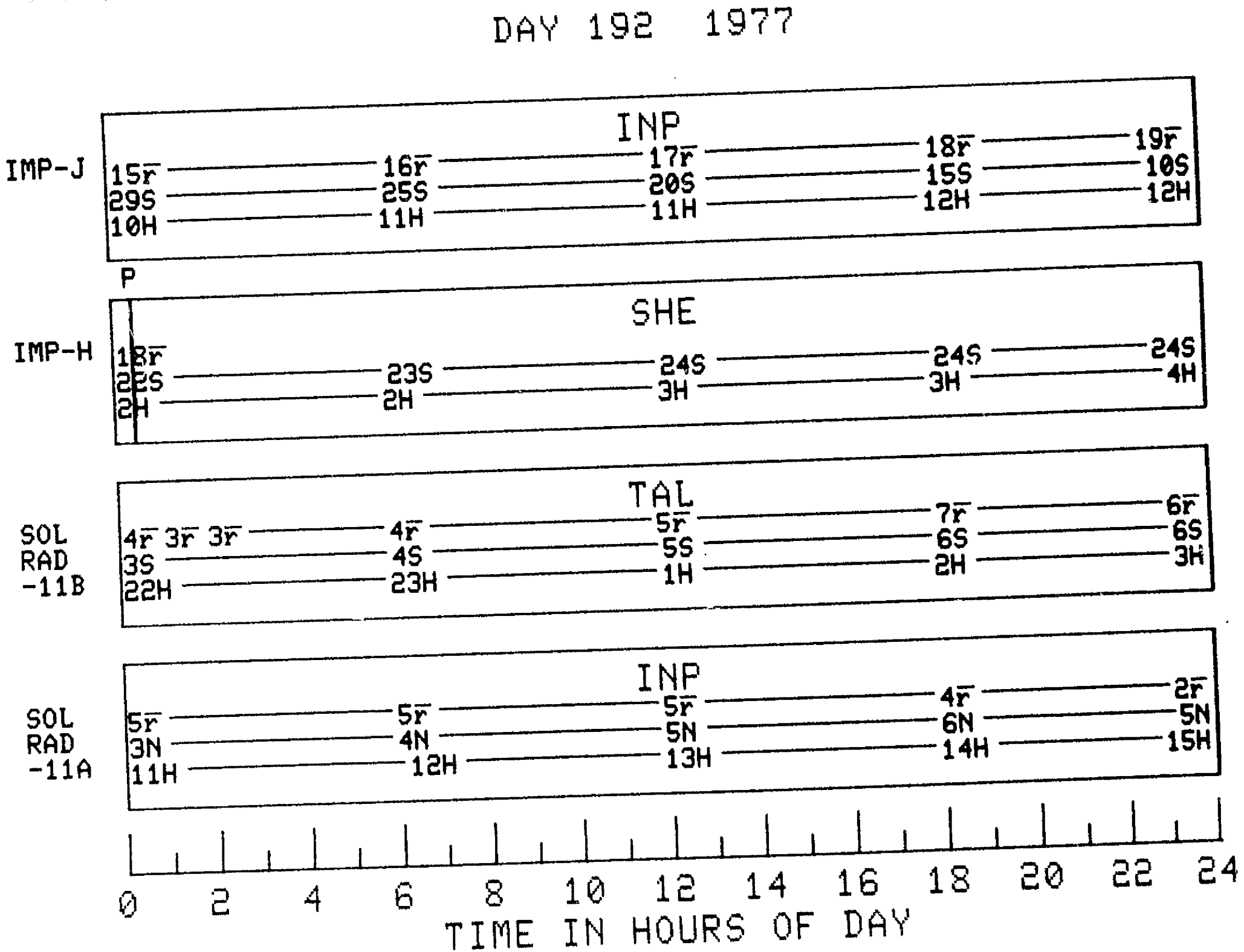

IMP-J
INP
6r 9r 11r 13r 14r
39S 38S 36S 33S 29S
7H 8H 9H 9H 10H
IMP-H
TAL
12r 11r 13r 18r 18r
15S 17S 19S 21S 22S
0H 0H 1H 1H 2H
P
SOL RAD -11B
SHE
SPH
TAL
4N 2N
18H 19H
10r 4r
0N 3S
20H 22H
S
SOL RAD -11A
SHE
INP
2r 0r 0r 1r 3r 4r 5r
3S 2S 0N 2N 3N
6H 7H 8H 9H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 191 1977

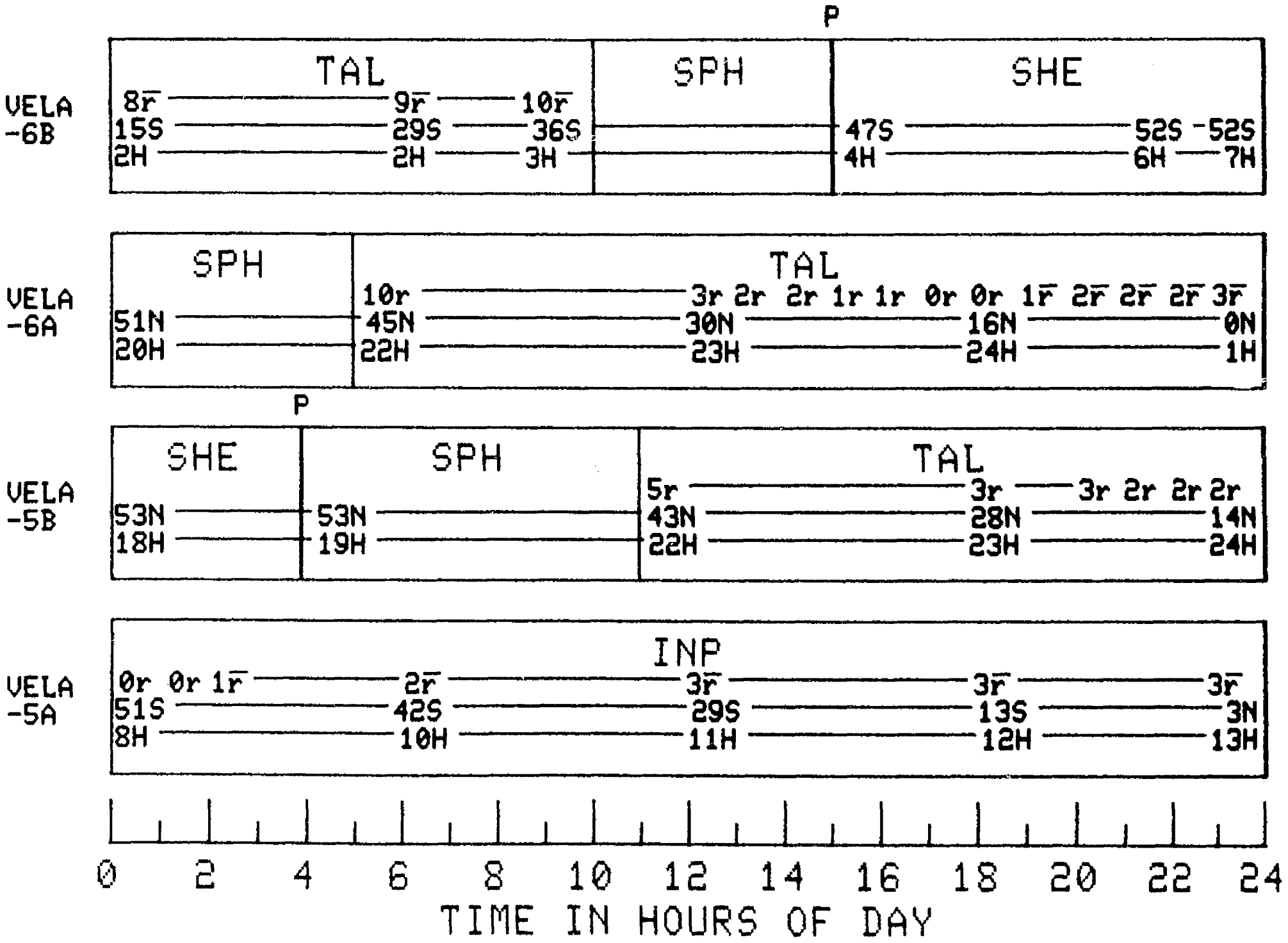

VELA -6B
TAL
10r 6r 3r 2r 1r 0r 1r 2r 2r 3r 5r 8r
42N 30N 15N 0N 15S
22H 23H 0H 1H 2H
S
P
VELA -6A
INP
SHE
3r 1r 0r
18N 35N 45N 53N 51N
14H 15H 16H 18H 20H
S
VELA -5B
INP
SHE
3r 2r 1r 0r
1S 16N 35N 46N 53N
13H 13H 15H 16H 18H
P
S
VELA -5A
TAL
SPH
SHE
12r 12r
26S 37S 47S 53S 51S
2H 3H 4H 6H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 191 1977

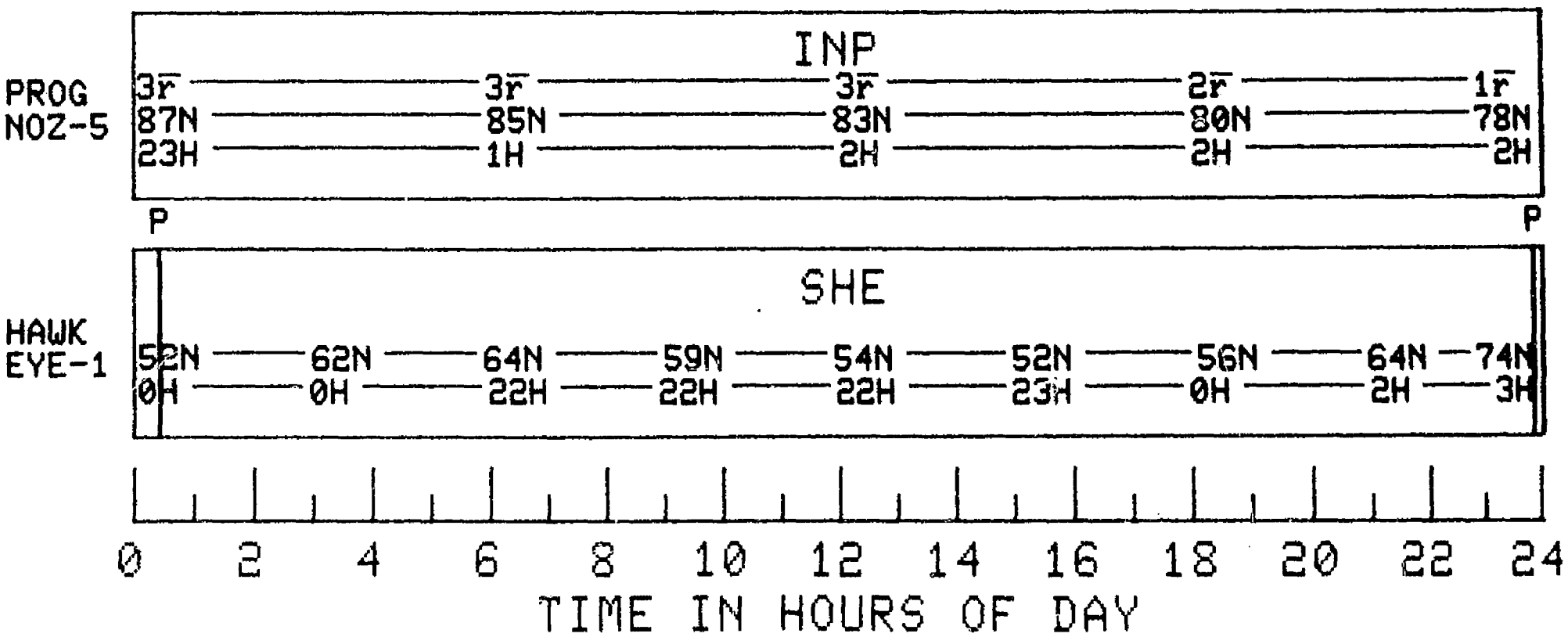

S
SHE
INP
PROG
NOZ-5
76N
16H
0r 1r
81N
16H
2r
85N
17H
3r
87N
19H
3r
87N
23H
SPH
HAWK
EYE-1
75N 6H
72N 9H
54N 10H
59S 23H
11N 23H
22N 22H
30N 23H
39N 0H
52N 0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 192 1977
IMP-J
INP
15r 16r 17r 18r 19r
29S 25S 20S 15S 10S
10H 11H 11H 12H 12H
P
IMP-H
SHE
18r 23S 24S 24S 24S
2?S 2H 3H 3H 4H
2H
SOL RAD -11B
TAL
4r 3r 3r 4r 5r 7r 6r
3S 4S 5S 6S 6S
22H 23H 1H 2H 3H
SOL RAD -11A
INP
5r 5r 5r 4r 2r
3N 4N 5N 6N 5N
11H 12H 13H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

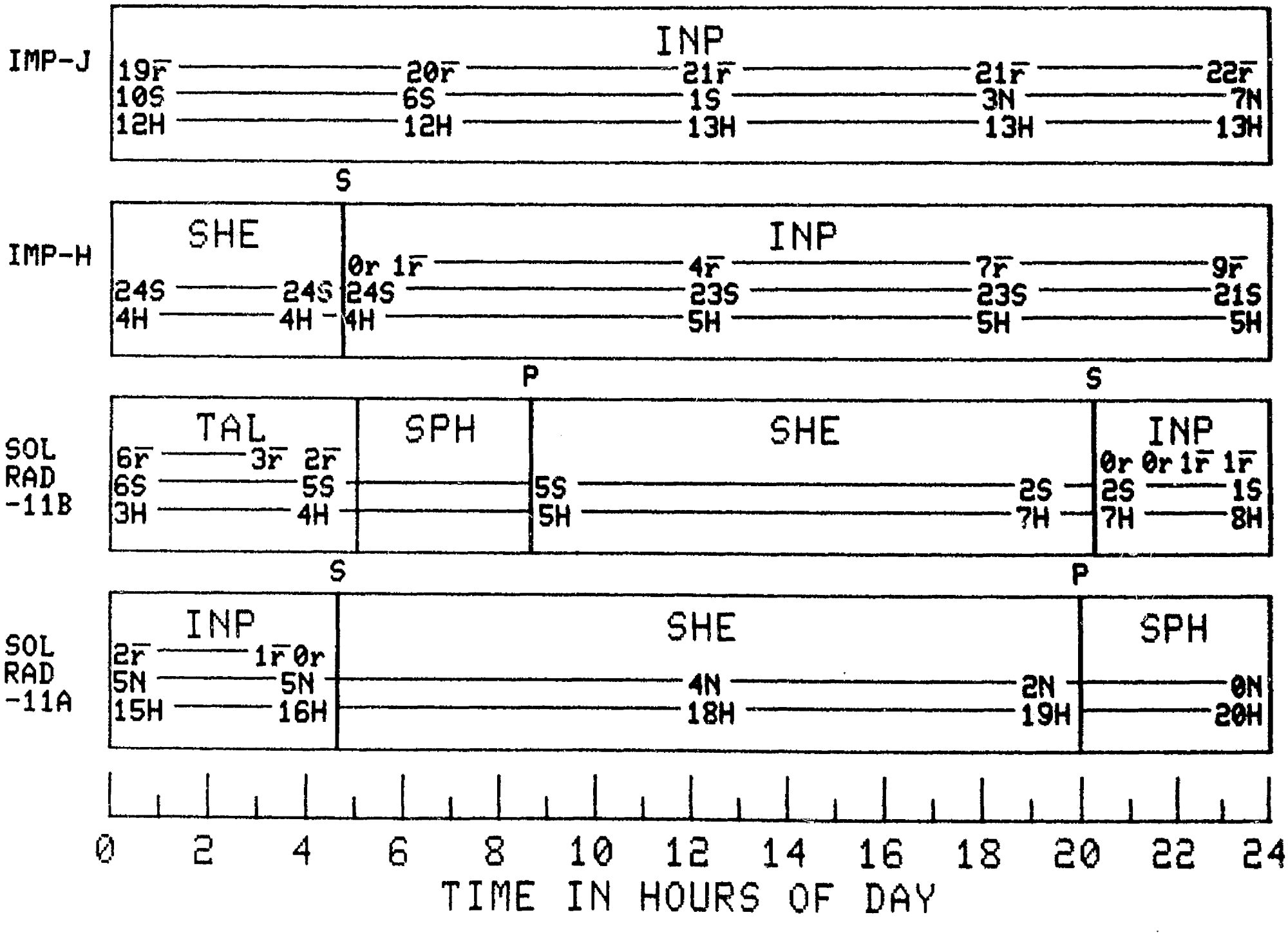
DAY 192 1977


P
VELA -6B
TAL
SPH
SHE
8r 9r 10r
15S 29S 36S
2H 2H 3H
47S 52S 52S
4H 6H 7H
VELA -6A
SPH
TAL
51N
20H
10r 3r 2r 2r 1r 1r 0r 0r 1r 2r 2r 2r 3r
45N 30N 16N 0N
22H 23H 24H 1H
P
VELA -5B
SHE
SPH
TAL
53N 53N
18H 19H
5r 3r 3r 2r 2r 2r
43N 28N 14N
22H 23H 24H
VELA -5A
INP
0r 0r 1r 2r 3r 3r 3r
51S 42S 29S 13S 3N
8H 10H 11H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

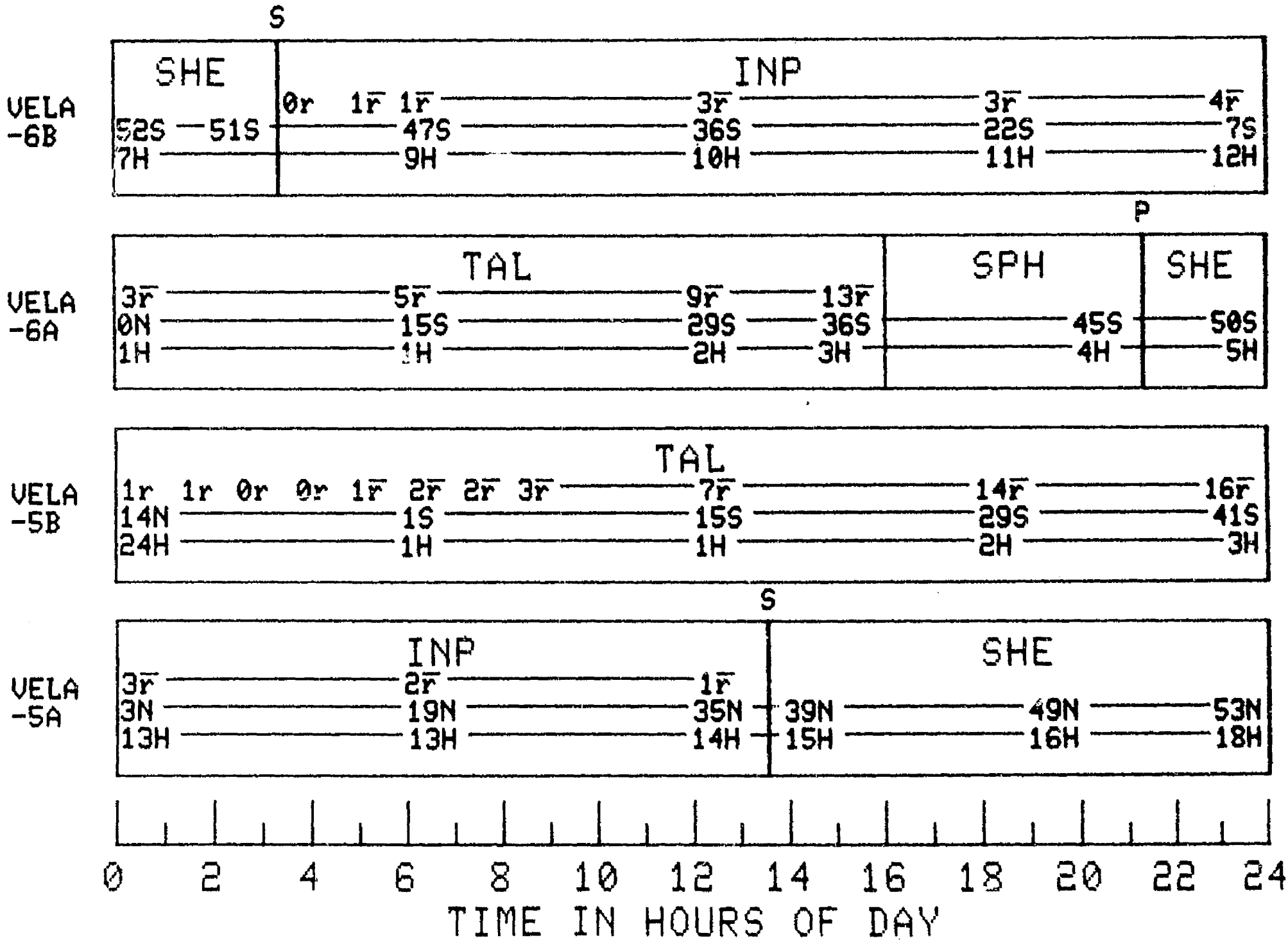
DAY 192 1977


INP
PROG
NOZ-5
3r 87N 23H
3r 85N 1H
3r 83N 2H
2r 80N 2H
1r 78N 2H
P
P
SHE
HAWK
EYE-1
52N 0H
62N 0H
64N 22H
59N 22H
54N 22H
52N 23H
56N 0H
64N 2H
74N 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

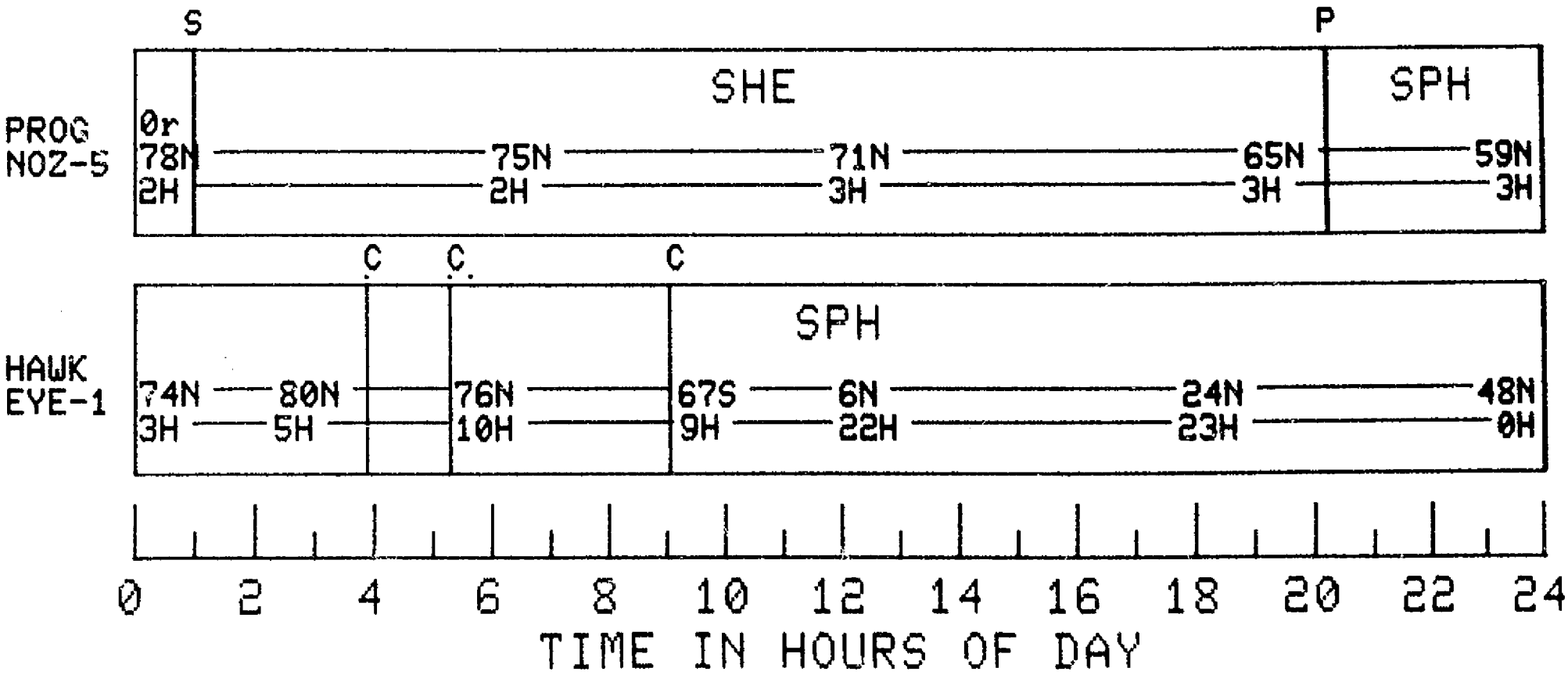
DAY 193 1977


IMP-J
INP
19r̄ 20r̄ 21r̄ 21r̄ 22r̄
10S 6S 1S 3N 7N
12H 12H 13H 13H 13H
S
IMP-H
SHE
24S 24S
4H 4H
INP
0r 1r̄ 4r̄ 7r̄ 9r̄
24S 23S 23S 21S
4H 5H 5H 5H
P
S
SOL RAD -11B
TAL
6r̄ 3r̄ 2r̄
6S 5S
3H 4H
SPH
SHE
5S 2S
5H 7H
INP
0r 0r 1r̄ 1r̄
2S 1S
7H 8H
S
P
SOL RAD -11A
INP
2r̄ 1r̄ 0r
5N 5N
15H 16H
SHE
4N 2N
18H 19H
SPH
0N
20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

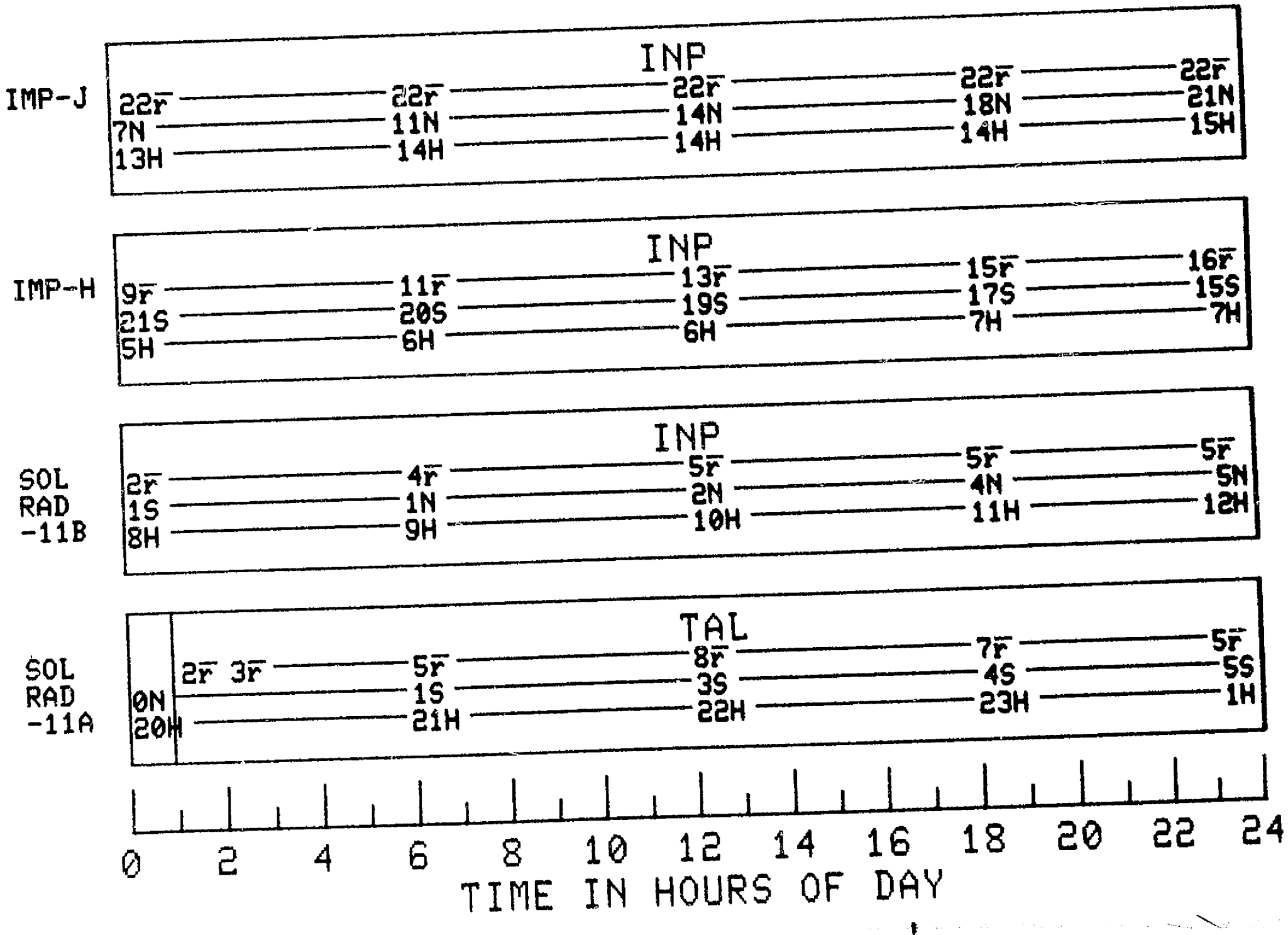
DAY 193 1977

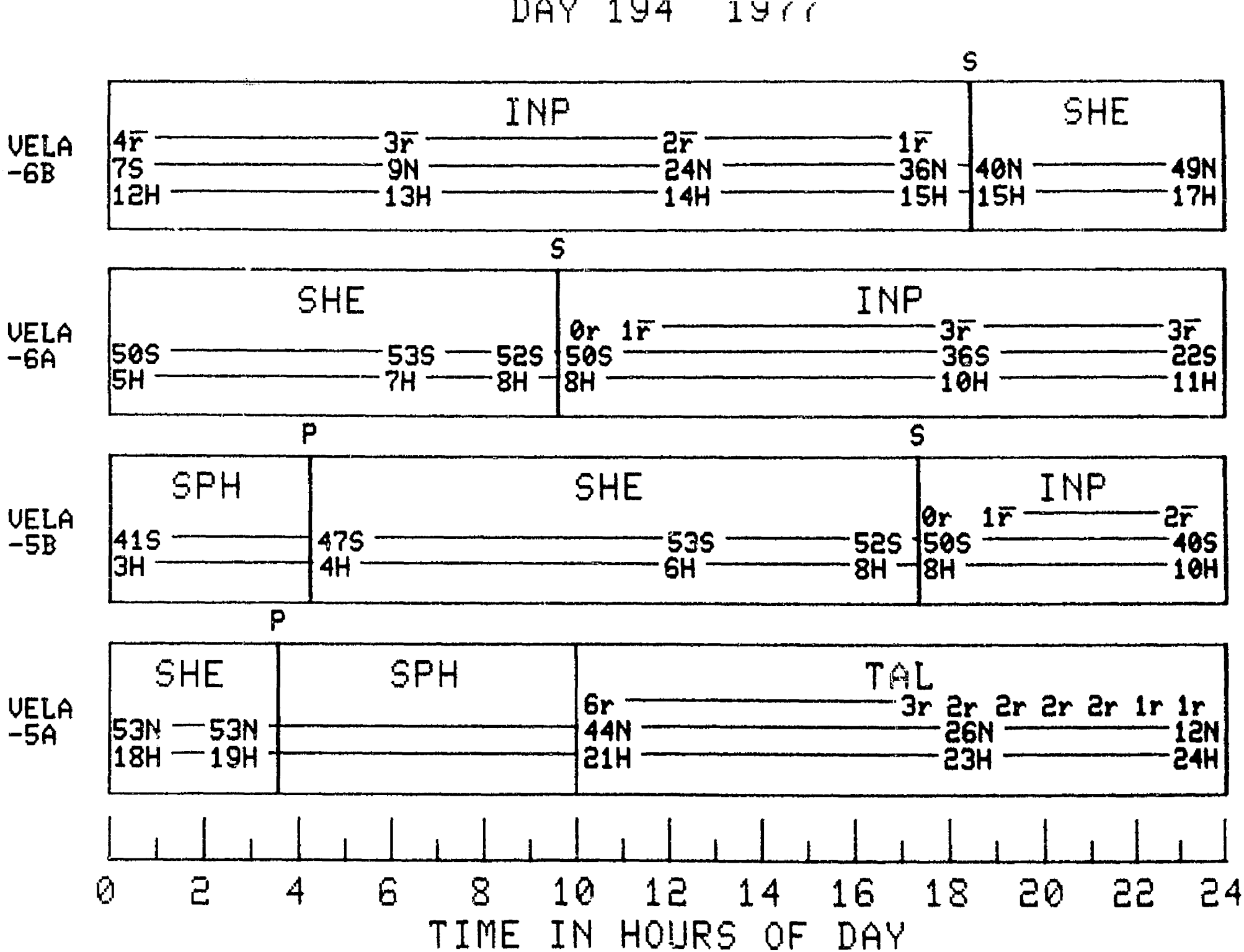

S
SHE
INP
VELA -6B
52S 51S
7H
0r 1r 1r 3r 3r 4r
47S 36S 22S 7S
9H 10H 11H 12H
P
TAL
SPH
SHE
VELA -6A
3r 5r 9r 13r
0N 15S 29S 36S 45S 50S
1H 1H 2H 3H 4H 5H
TAL
VELA -5B
1r 1r 0r 0r 1r 2r 2r 3r 7r 14r 16r
14N 1S 15S 29S 41S
24H 1H 1H 2H 3H
S
INP
SHE
VELA -5A
3r 2r 1r
3N 19N 35N 39N 49N 53N
13H 13H 14H 15H 16H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 193 1977

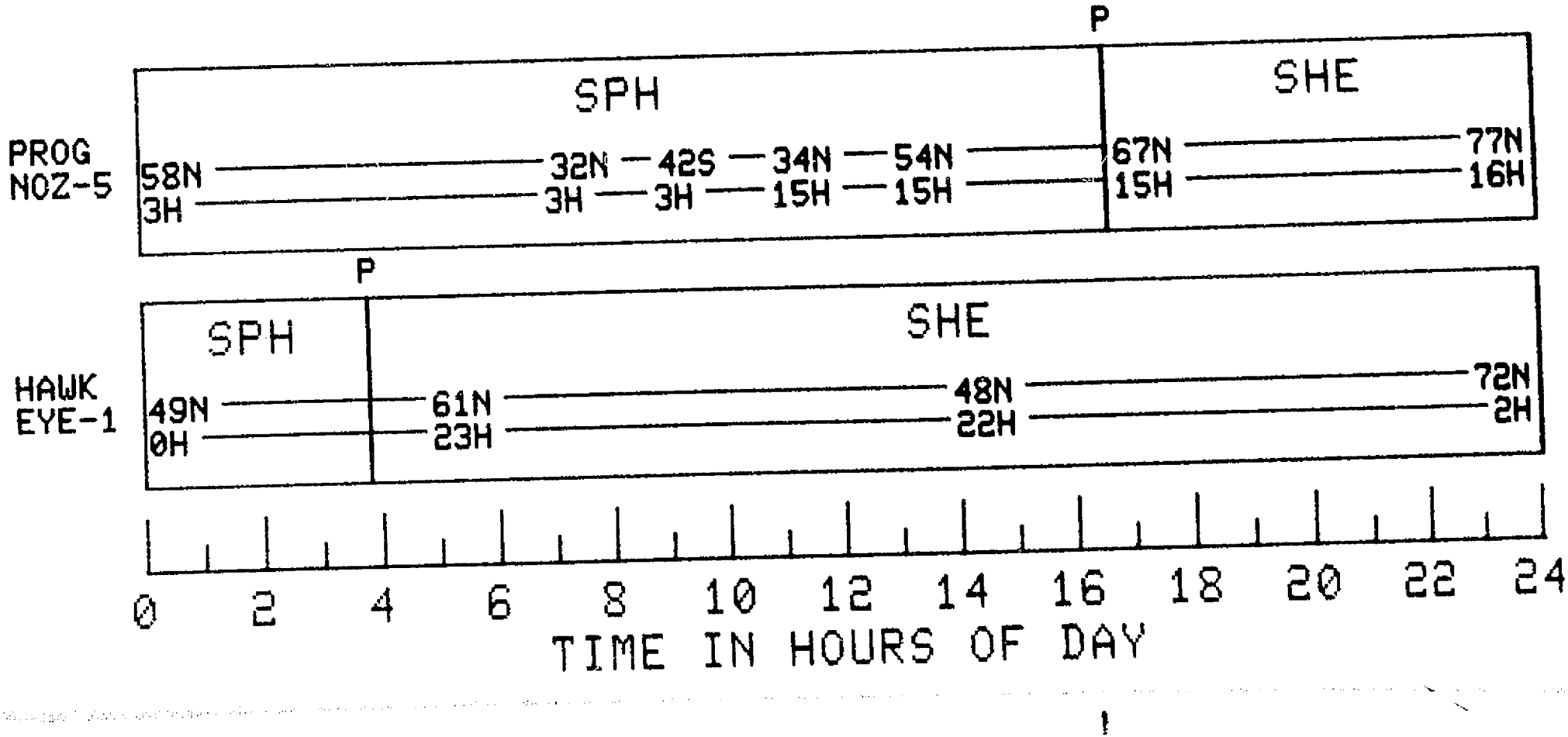

S
P
SHE
SPH
PROG
NOZ-5
0r
78N
2H
75N
2H
71N
3H
65N
3H
59N
3H
C
C
C
SPH
HAWK
EYE-1
74N
3H
80N
5H
76N
10H
67S
9H
6N
22H
24N
23H
48N
0H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 194 1977

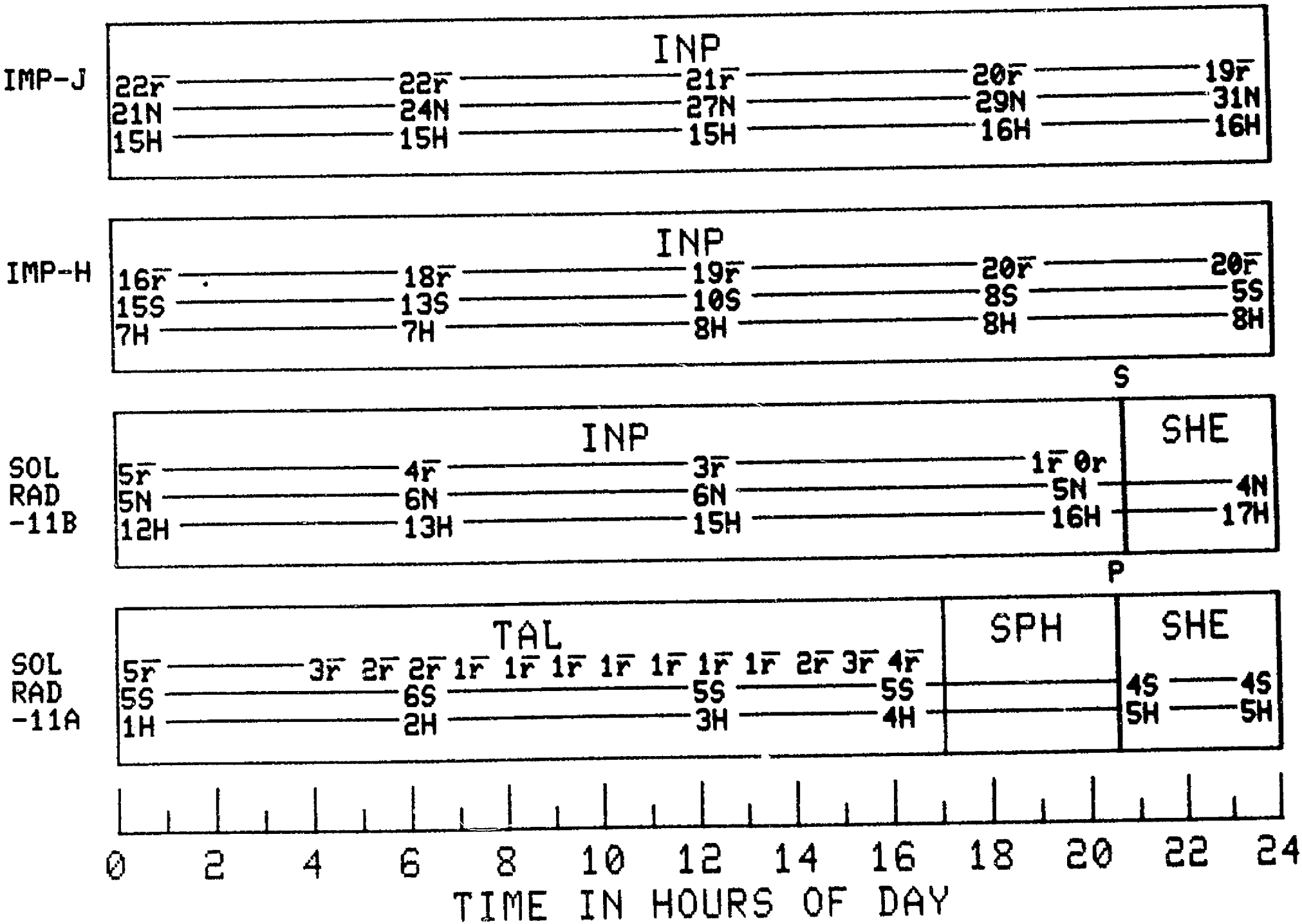

IMP-J
INP
22r 22r 22r 22r 22r
7N 11N 14N 18N 21N
13H 14H 14H 14H 15H
IMP-H
INP
9r 11r 13r 15r 16r
21S 20S 19S 17S 15S
5H 6H 6H 7H 7H
SOL RAD -11B
INP
2r 4r 5r 5r 5r
1S 1N 2N 4N 5N
8H 9H 10H 11H 12H
SOL RAD -11A
TAL
2r 3r 5r 8r 7r 5r
0N 1S 3S 4S 5S
20H 21H 22H 23H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

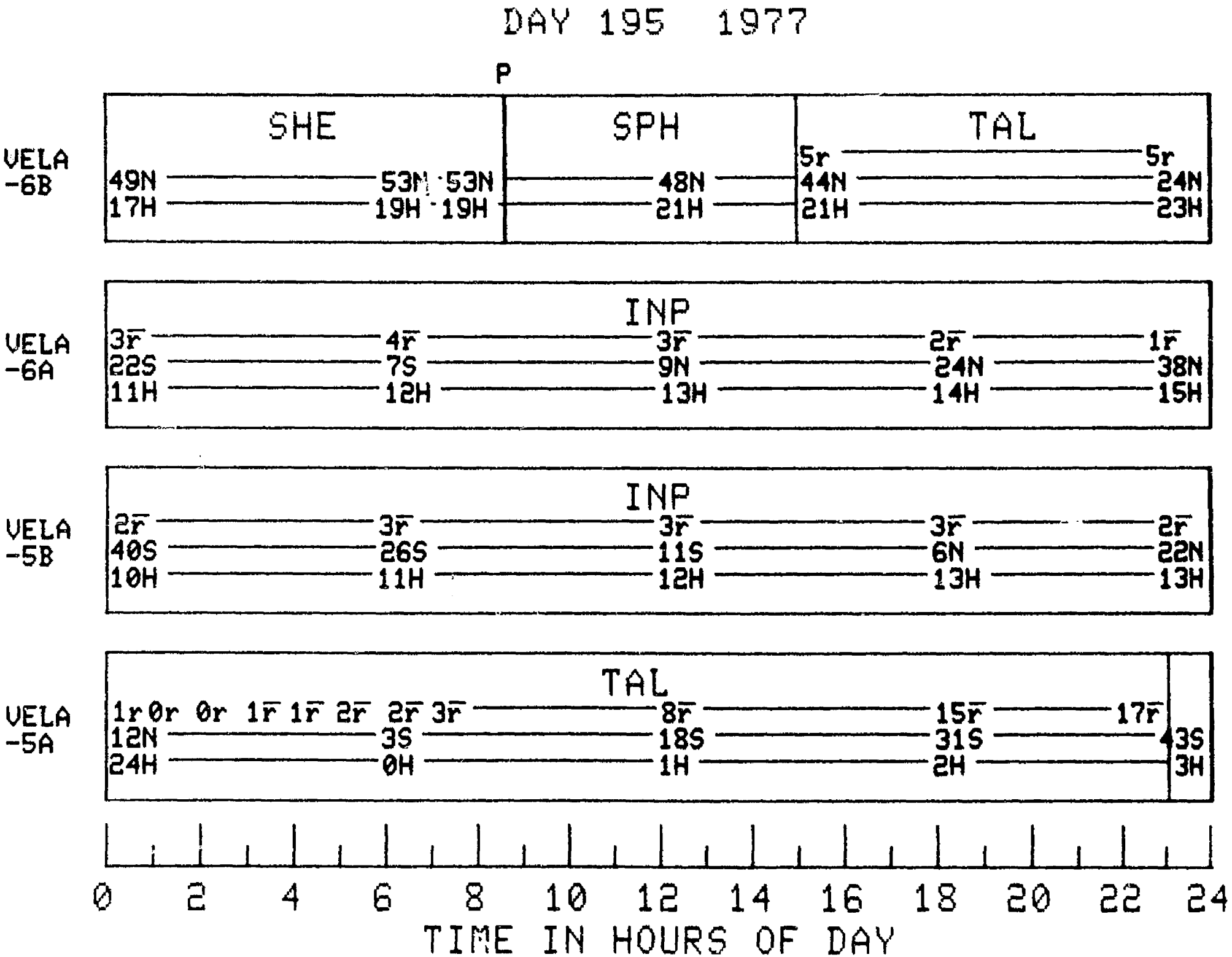

DAY 194 1977
VELA -6B
INP
SHE
S
4r 3r 2r 1r
7S 9N 24N 36N
12H 13H 14H 15H
40N 49N
15H 17H
VELA -6A
SHE
INP
S
50S 53S 52S
5H 7H 8H
0r 1r 3r 3r
50S 36S 22S
8H 10H 11H
VELA -5B
SPH
SHE
INP
P
S
41S 47S 53S 52S
3H 4H 6H 8H
0r 1r 2r
50S 40S
8H 10H
VELA -5A
SHE
SPH
TAL
P
53N 53N
18H 19H
6r 3r 2r 2r 2r 2r 1r 1r
44N 26N 12N
21H 23H 24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 194 1977

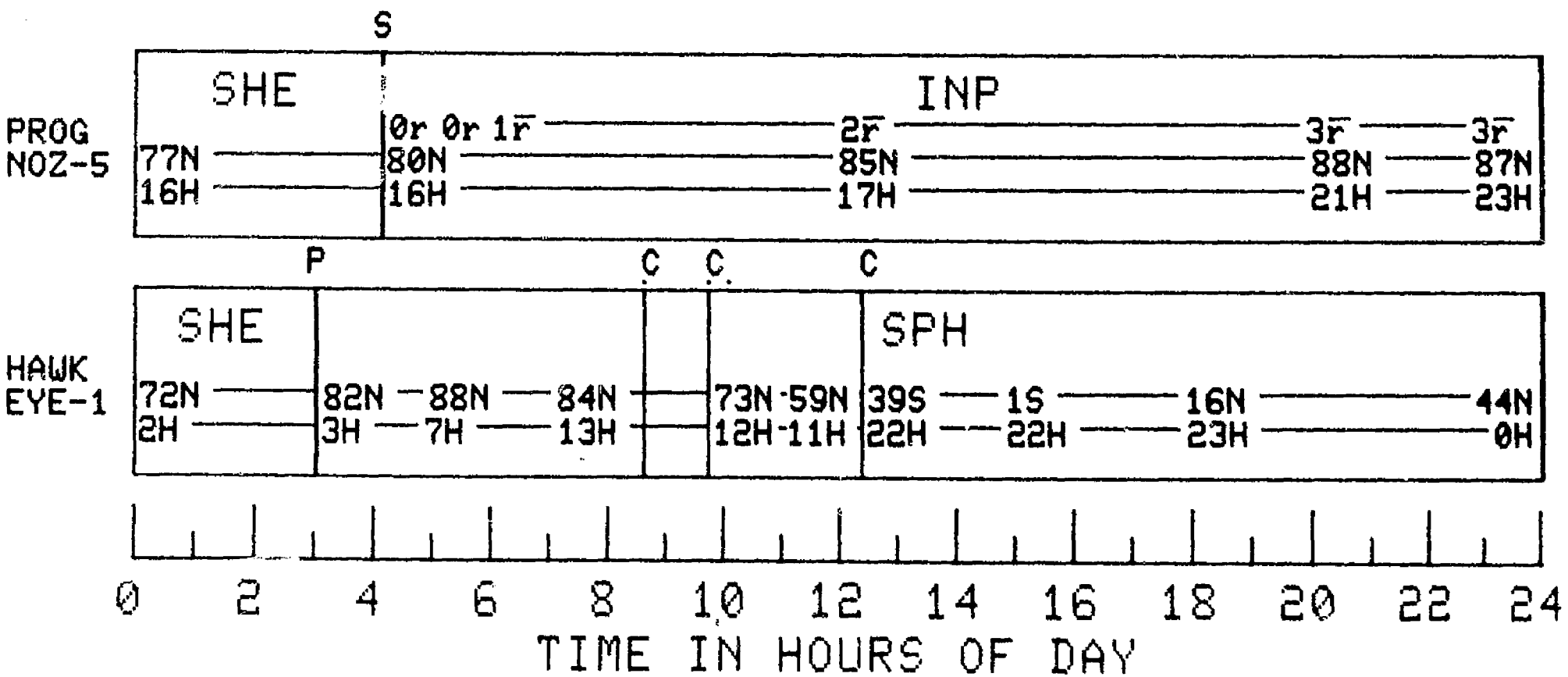

P
SPH
SHE
PROG
NOZ-5
58N
3H
32N
3H
42S
3H
34N
15H
54N
15H
67N
15H
77N
16H
P
SPH
SHE
HAWK
EYE-1
49N
0H
61N
23H
48N
22H
72N
2H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 195 1977

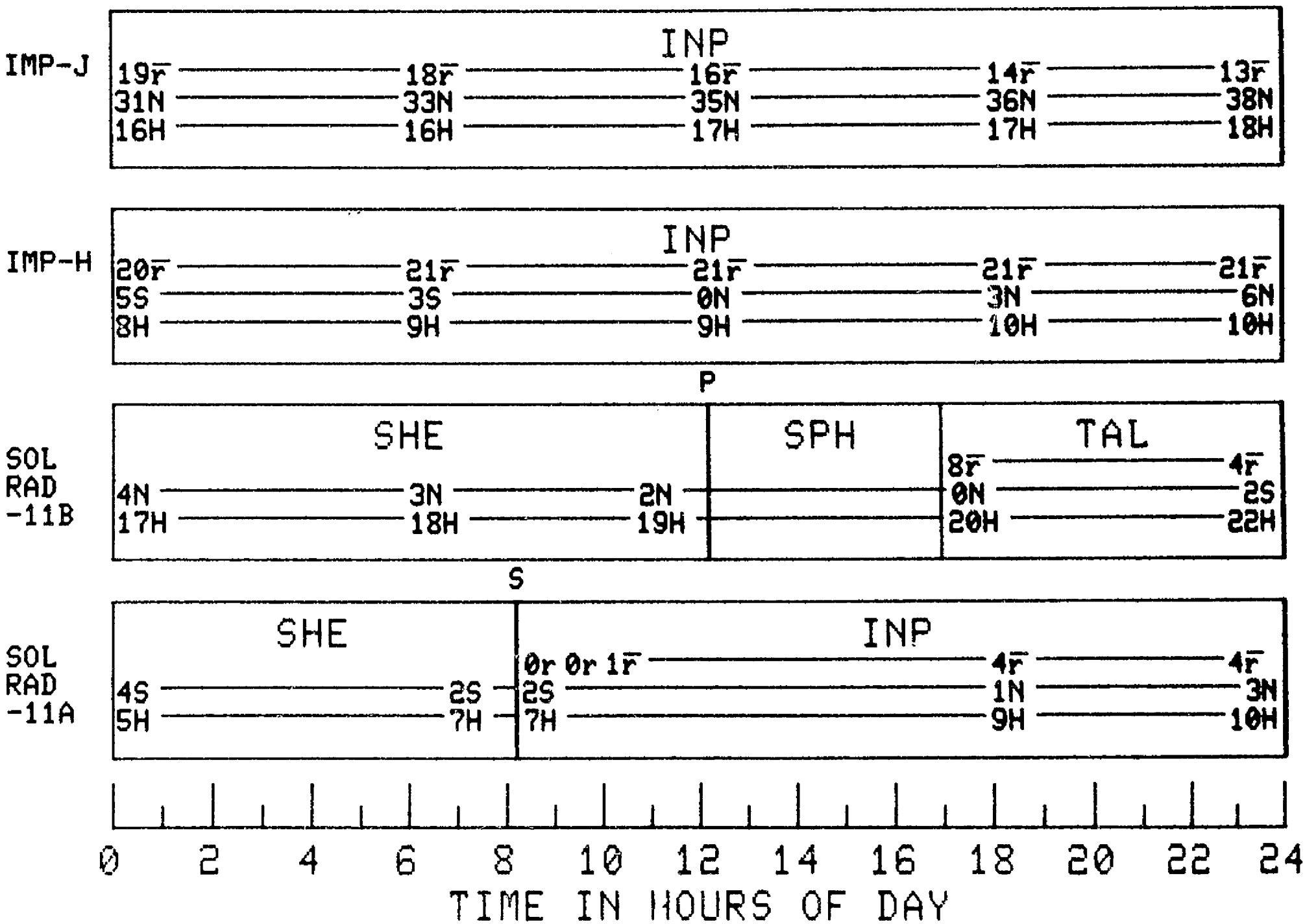

IMP-J
INP
22r 22r 21r 20r 19r
21N 24N 27N 29N 31N
15H 15H 15H 16H 16H
IMP-H
INP
16r 18r 19r 20r 20r
15S 13S 10S 8S 5S
7H 7H 8H 8H 8H
S
SOL RAD -11B
INP
SHE
5r 4r 3r 1r 0r
5N 6N 6N 5N 4N
12H 13H 15H 16H 17H
P
SOL RAD -11A
TAL
SPH
SHE
5r 3r 2r 2r 1r 1r 1r 1r 1r 1r 1r 2r 3r 4r
5S 6S 5S 5S 4S 4S
1H 2H 3H 4H 5H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 195 1977
P
VELA -6B
SHE
SPH
TAL
49N 53N 53N
17H 19H 19H
48N
21H
5r 5r
44N 24N
21H 23H
VELA -6A
INP
3r 4r 3r 2r 1r
22S 7S 9N 24N 38N
11H 12H 13H 14H 15H
VELA -5B
INP
2r 3r 3r 3r 2r
40S 26S 11S 6N 22N
10H 11H 12H 13H 13H
VELA -5A
TAL
1r 0r 0r 1r 1r 2r 2r 3r 8r 15r 17r
12N 3S 18S 31S 43S
24H 0H 1H 2H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

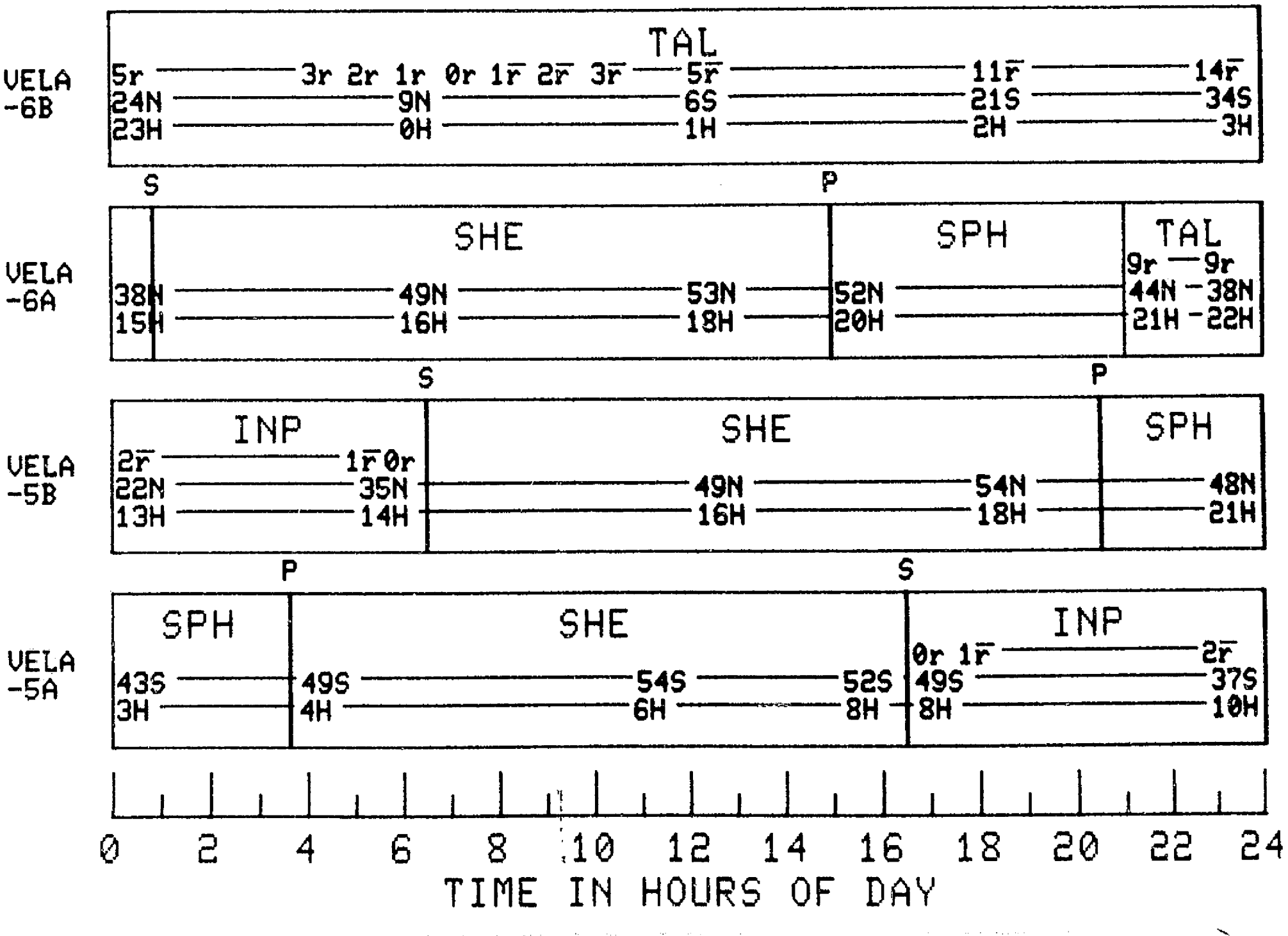
DAY 195 1977


S
SHE
INP
PROG
NOZ-5
77N
16H
0r 0r 1r
80N
16H
2r
85N
17H
3r
88N
21H
3r
87N
23H
P
C
C
C
SHE
SPH
HAWK
EYE-1
72N
2H
82N
3H
88N
7H
84N
13H
73N 59N
12H 11H
39S
22H
1S
22H
16N
23H
44N
0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

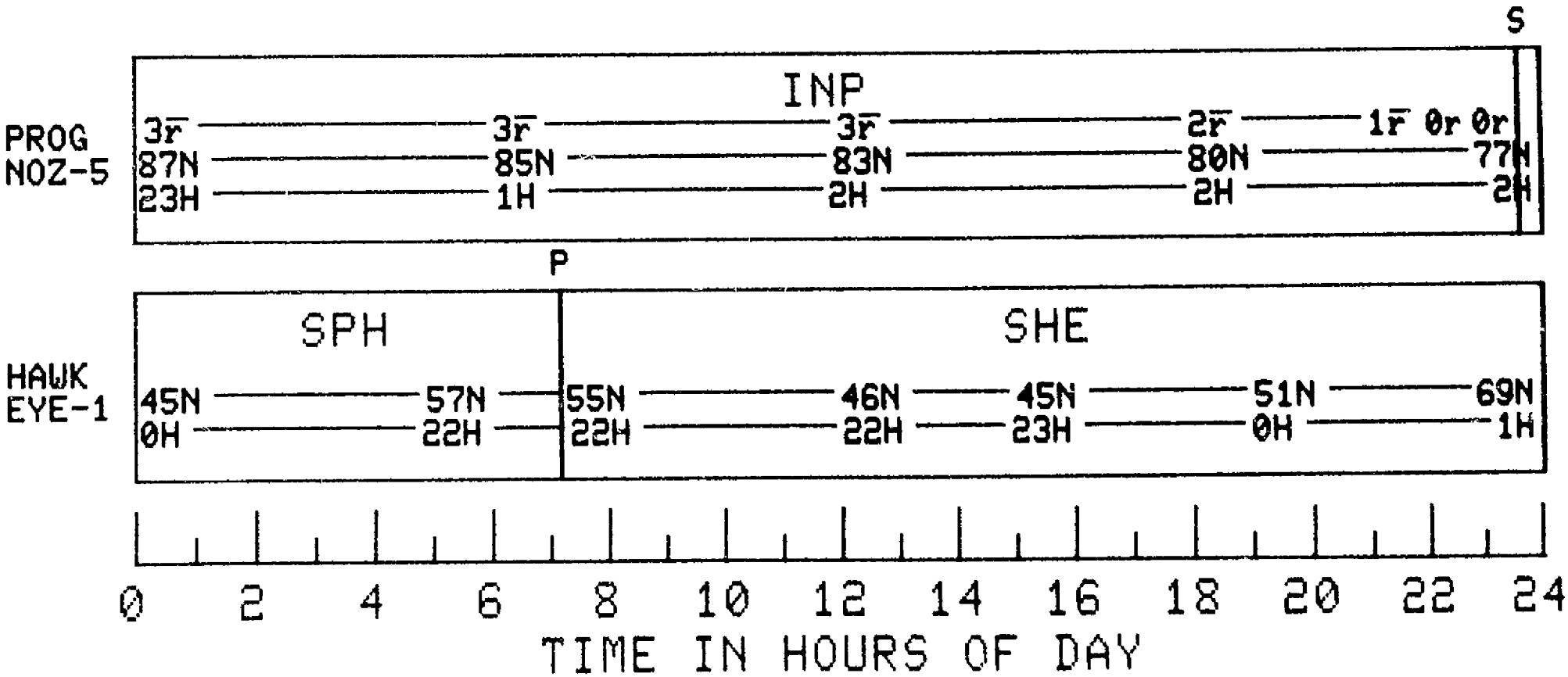
DAY 196 1977


IMP-J
INP
19r 18r 16r 14r 13r
31N 33N 35N 36N 38N
16H 16H 17H 17H 18H
IMP-H
INP
20r 21r 21r 21r 21r
5S 3S 0N 3N 6N
8H 9H 9H 10H 10H
P
SOL RAD -11B
SHE
SPH
TAL
4N 3N 2N
17H 18H 19H
8r 4r
0N 2S
20H 22H
S
SOL RAD -11A
SHE
INP
4S 2S
5H 7H
0r 0r 1r 4r 4r
2S 1N 3N
7H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

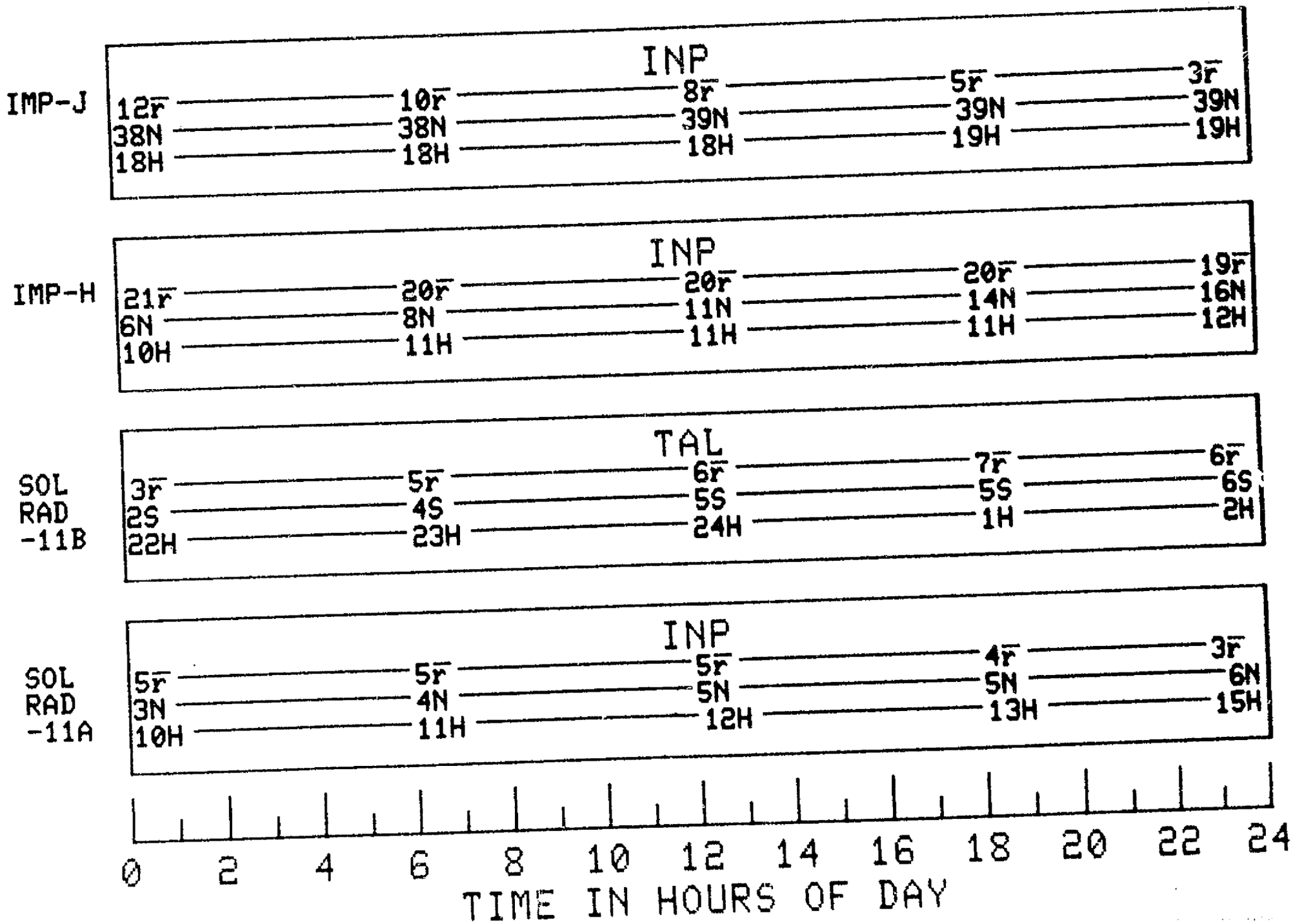
DAY 196 1977


VELA -6B
TAL
5r 3r 2r 1r 0r 1r̄ 2r̄ 3r̄ 5r̄ 11r̄ 14r̄
24N 9N 6S 21S 34S
23H 0H 1H 2H 3H
S
P
VELA -6A
SHE
SPH
TAL
9r 9r
38N 49N 53N 52N 44N 38N
15H 16H 18H 20H 21H 22H
S
P
VELA -5B
INP
SHE
SPH
2r̄ 1r̄ 0r
22N 35N 49N 54N 48N
13H 14H 16H 18H 21H
P
S
VELA -5A
SPH
SHE
INP
0r 1r̄ 2r̄
43S 49S 54S 52S 49S 37S
3H 4H 6H 8H 8H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

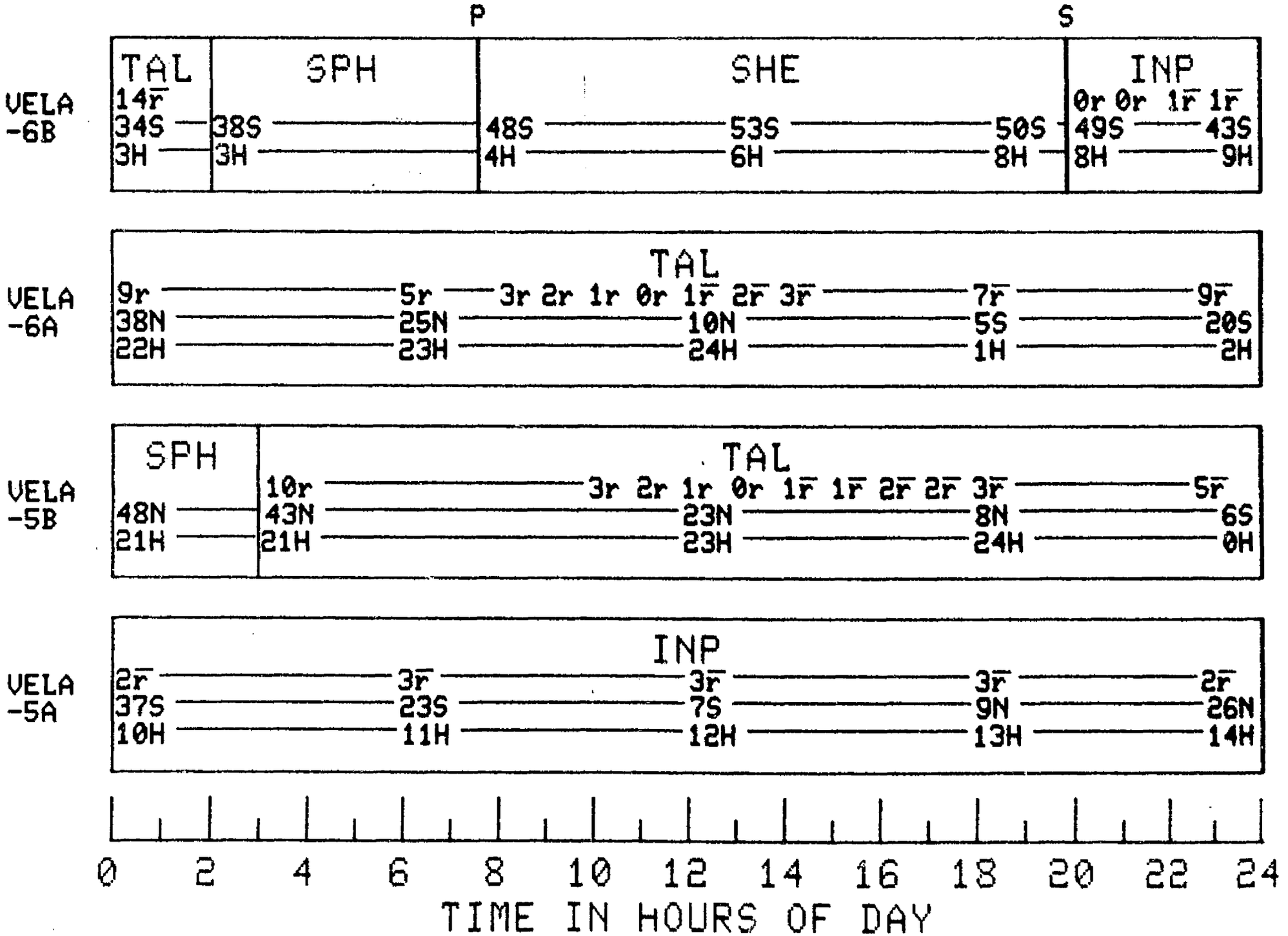
DAY 196 1977


S
INP
PROG
NOZ-5
3r 3r 3r 2r 1r 0r 0r
87N 85N 83N 80N 77N
23H 1H 2H 2H 2H
P
SPH
SHE
HAWK
EYE-1
45N 57N 55N 46N 45N 51N 69N
0H 22H 22H 22H 23H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

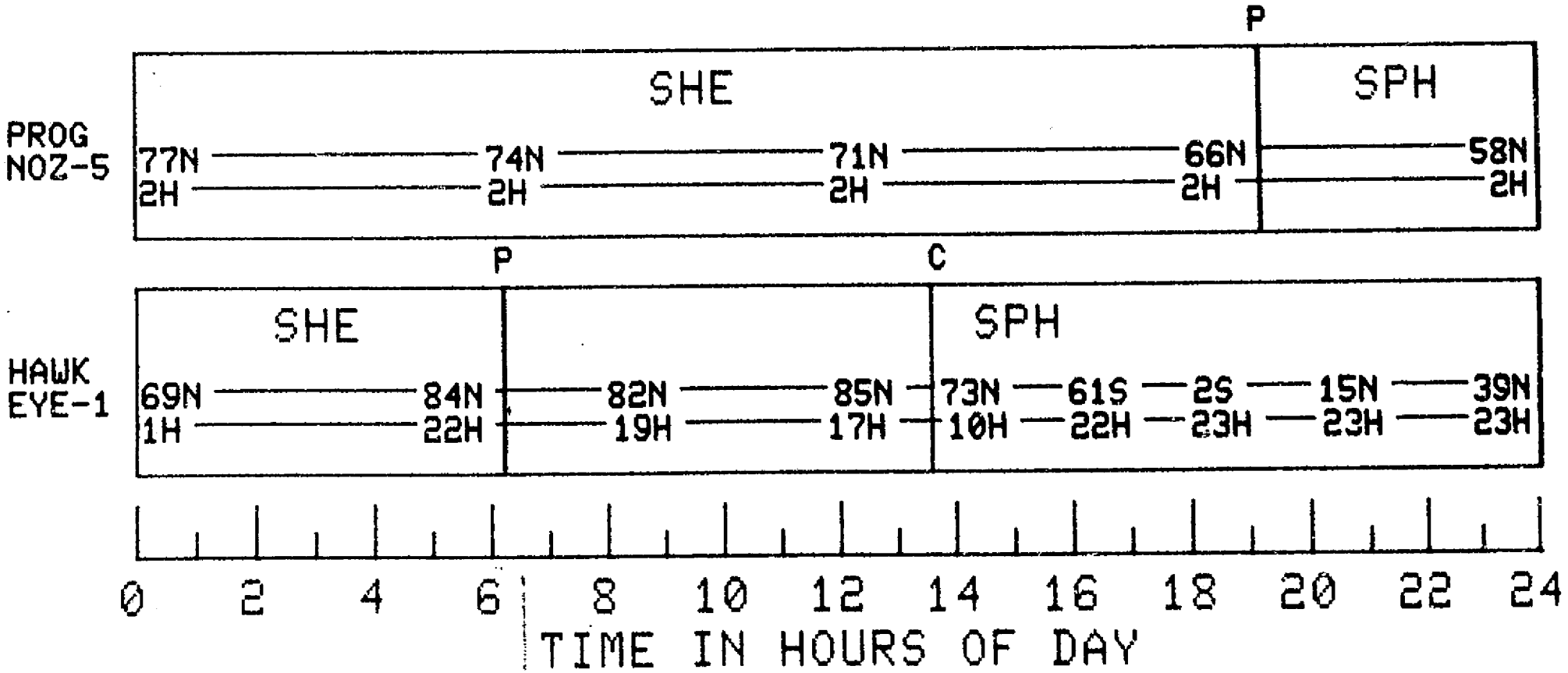
DAY 197 1977


IMP-J
INP
12r̄ 10r̄ 8r̄ 5r̄ 3r̄
38N 38N 39N 39N 39N
18H 18H 18H 19H 19H
IMP-H
INP
21r̄ 20r̄ 20r̄ 20r̄ 19r̄
6N 8N 11N 14N 16N
10H 11H 11H 11H 12H
SOL RAD -11B
TAL
3r̄ 5r̄ 6r̄ 7r̄ 6r̄
2S 4S 5S 5S 6S
22H 23H 24H 1H 2H
SOL RAD -11A
INP
5r̄ 5r̄ 5r̄ 4r̄ 3r̄
3N 4N 5N 5N 6N
10H 11H 12H 13H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

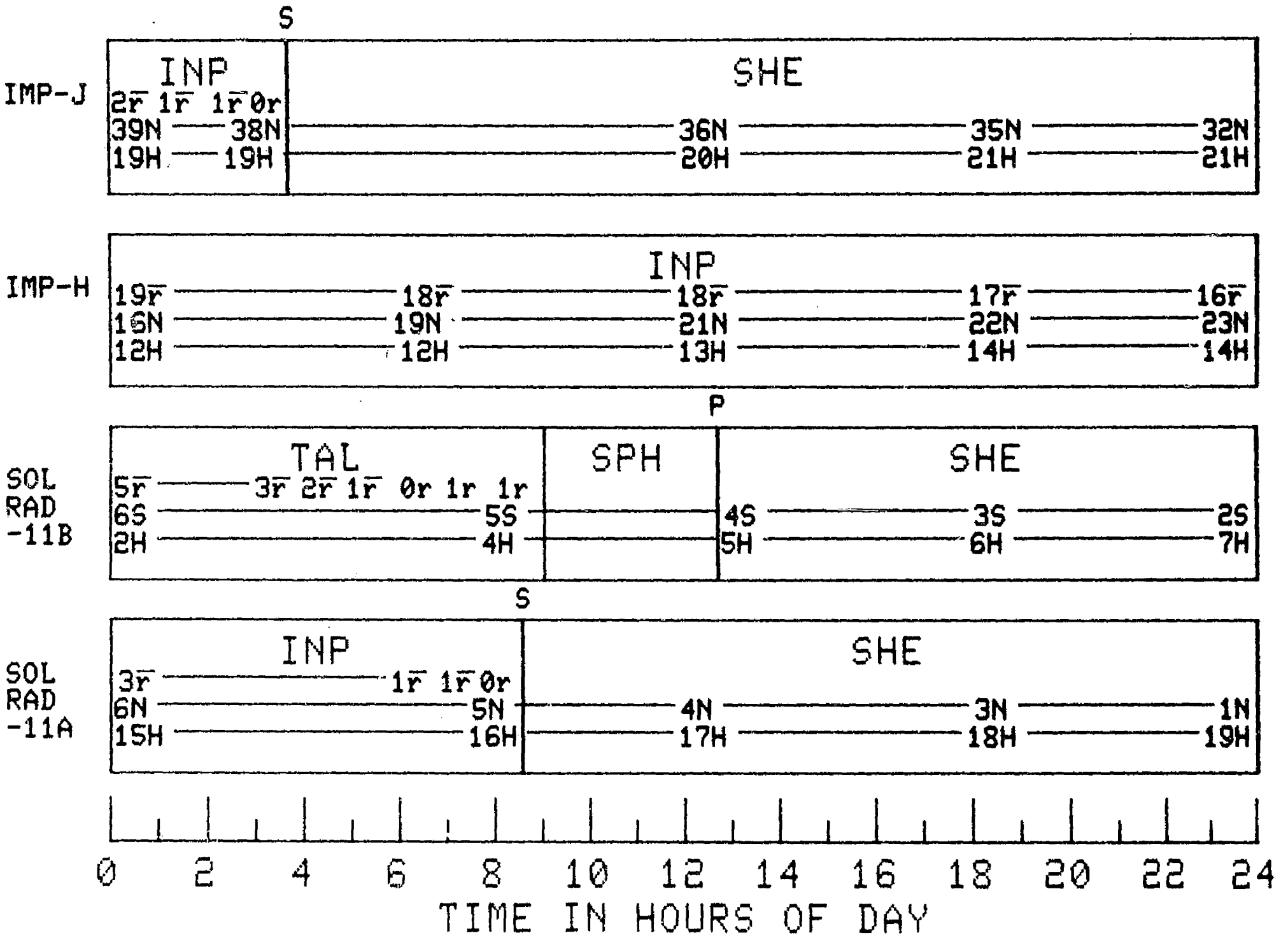
DAY 197 1977


P
S
VELA -6B
TAL
14r̄
34S
3H
SPH
38S
3H
SHE
48S
4H
53S
6H
50S
8H
INP
0r 0r 1r̄ 1r̄
49S
8H
43S
9H
VELA -6A
TAL
9r
38N
22H
5r
25N
23H
3r 2r 1r 0r 1r̄ 2r̄ 3r̄
10N
24H
7r̄
5S
1H
9r̄
20S
2H
VELA -5B
SPH
48N
21H
TAL
10r
43N
21H
3r 2r 1r 0r 1r̄ 1r̄ 2r̄ 2r̄ 3r̄
23N
23H
8N
24H
5r̄
6S
0H
VELA -5A
INP
2r̄
37S
10H
3r̄
23S
11H
3r̄
7S
12H
3r̄
9N
13H
2r̄
26N
14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 197 1977

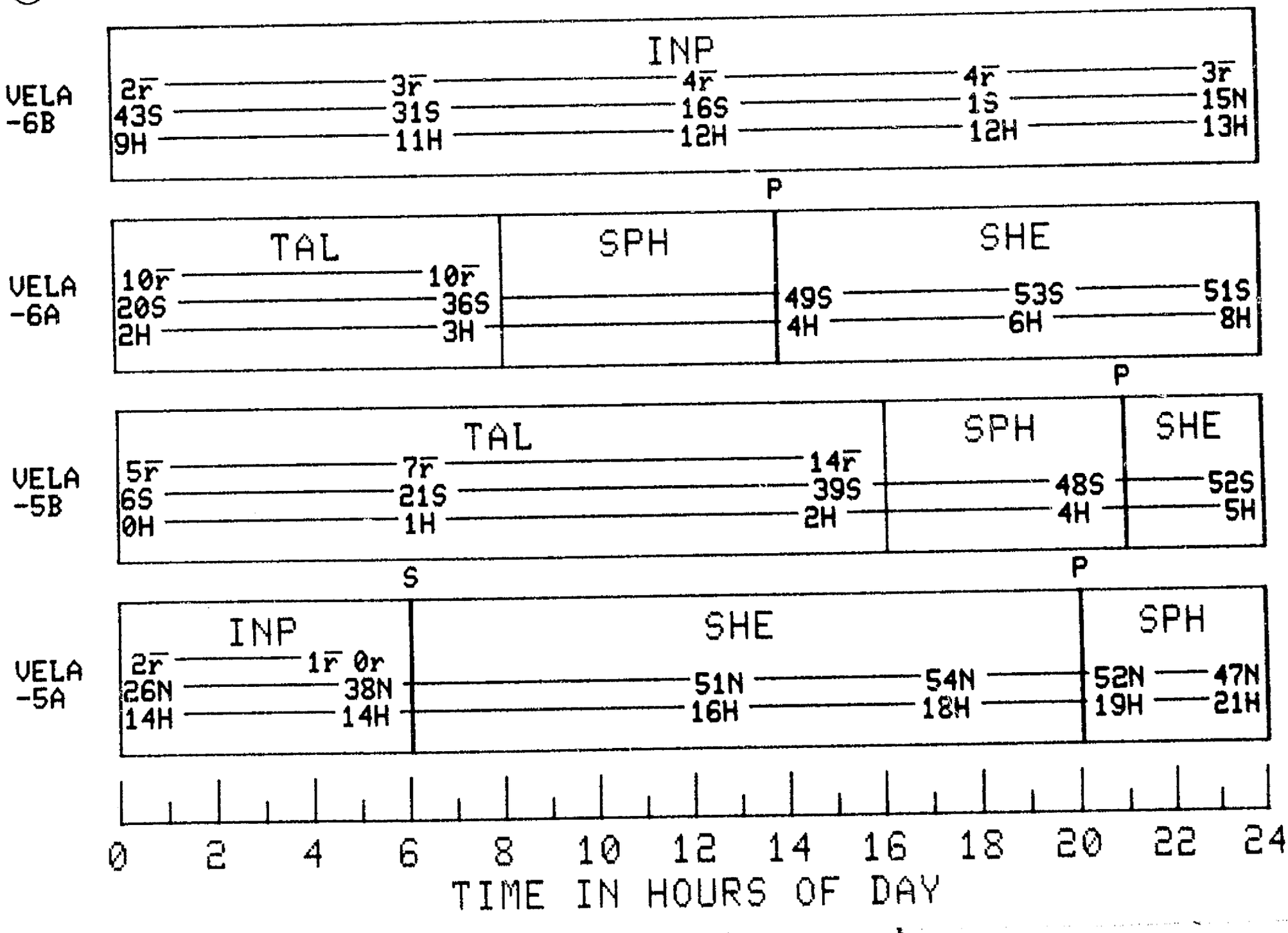

P
SHE
SPH
PROG
NOZ-5
77N
74N
71N
66N
58N
2H
2H
2H
2H
2H
P
C
SHE
SPH
HAWK
EYE-1
69N
84N
82N
85N
73N
61S
2S
15N
39N
1H
22H
19H
17H
10H
22H
23H
23H
23H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 198 1977

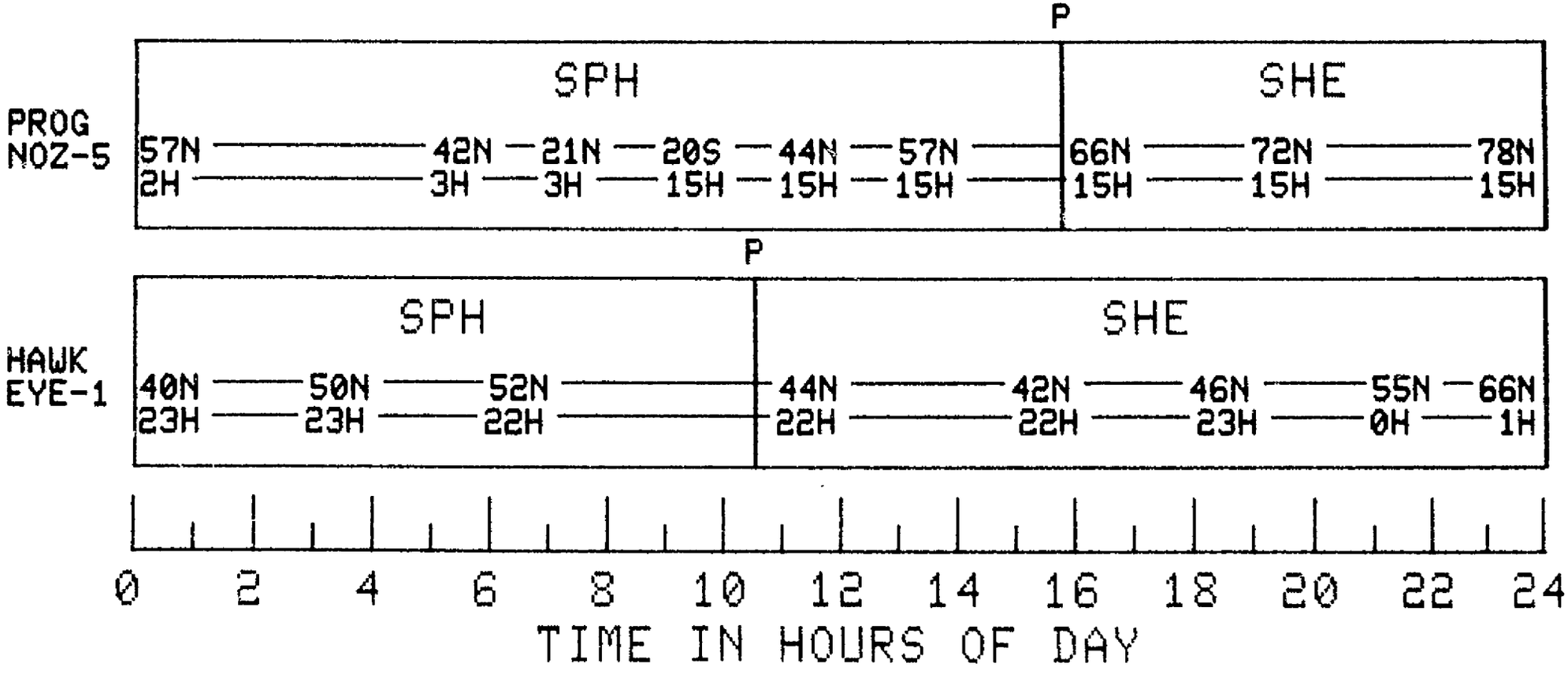

S
IMP-J
INP
SHE
2r̄ 1r̄ 1r̄ 0r
39N 38N 36N 35N 32N
19H 19H 20H 21H 21H
IMP-H
INP
19r̄ 18r̄ 18r̄ 17r̄ 16r̄
16N 19N 21N 22N 23N
12H 12H 13H 14H 14H
P
SOL RAD -11B
TAL
SPH
SHE
5r̄ 3r̄ 2r̄ 1r̄ 0r 1r 1r
6S 5S 4S 3S 2S
2H 4H 5H 6H 7H
S
SOL RAD -11A
INP
SHE
3r̄ 1r̄ 1r̄ 0r
6N 5N 4N 3N 1N
15H 16H 17H 18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

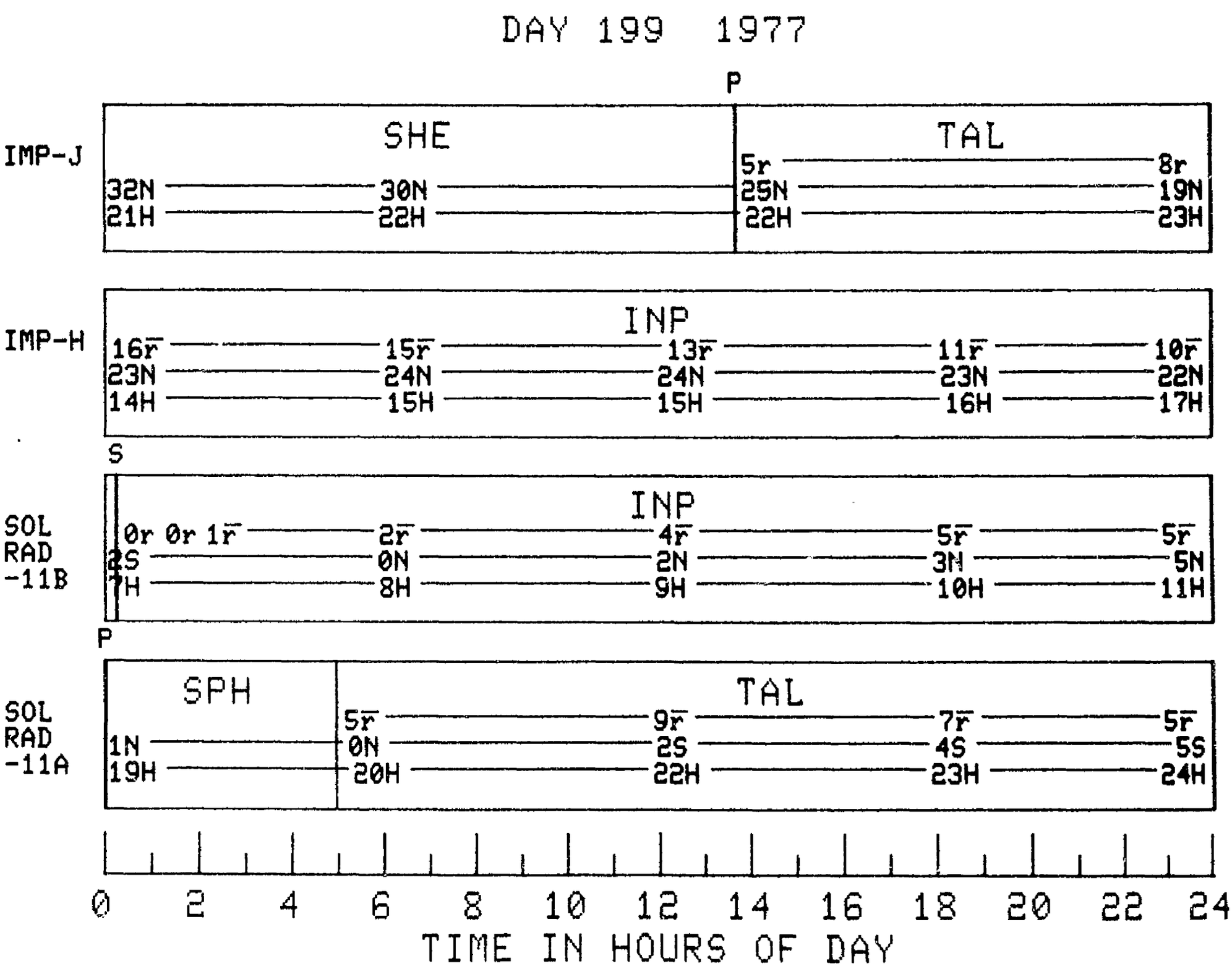
C-2

DAY 198 1977

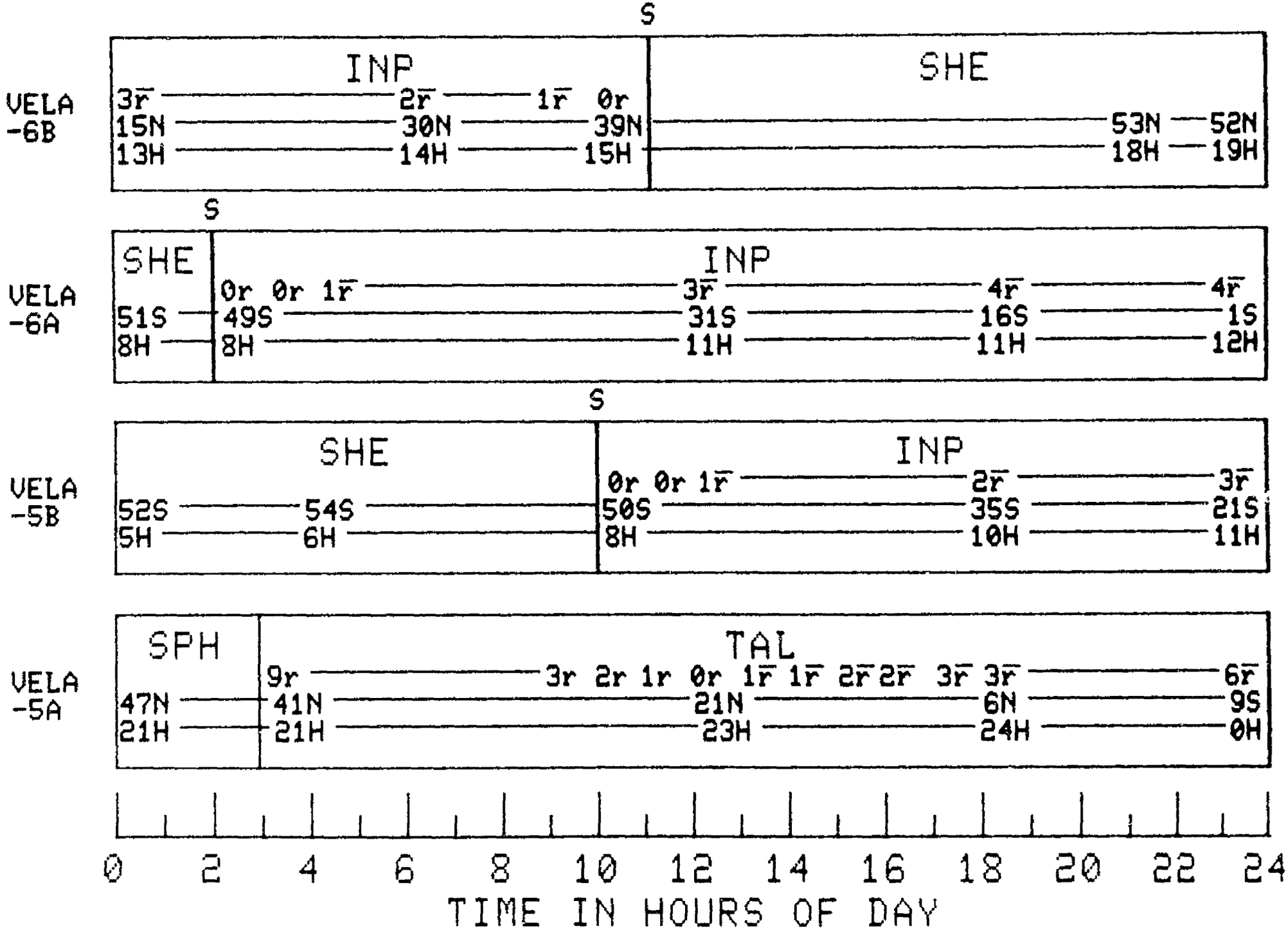


DAY 198 1977

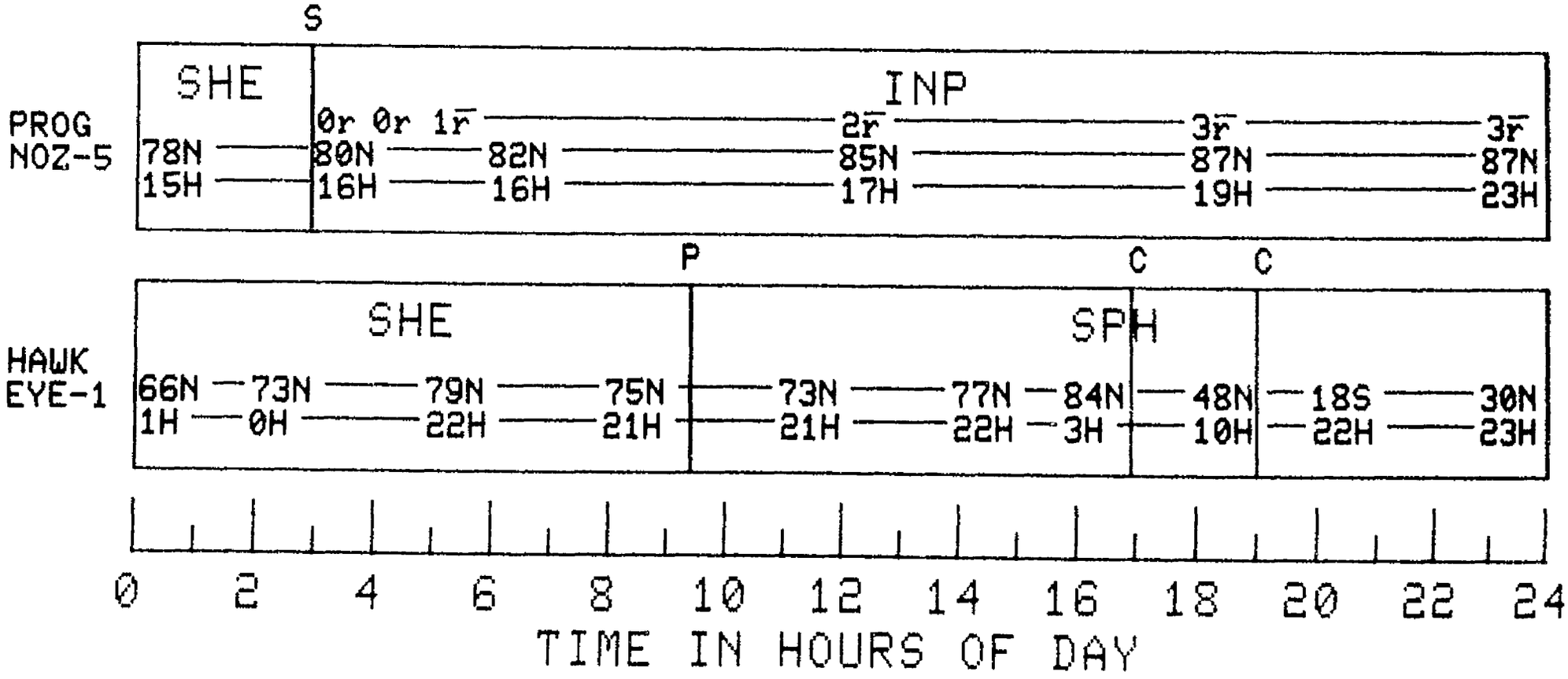

P
SPH
SHE
PROG
NOZ-5
57N 42N 21N 20S 44N 57N 66N 72N 78N
2H 3H 3H 15H 15H 15H 15H 15H 15H
P
SPH
SHE
HAWK
EYE-1
40N 50N 52N 44N 42N 46N 55N 66N
23H 23H 22H 22H 22H 23H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 199 1977
P
IMP-J
SHE
TAL
32N
21H
30N
22H
5r
25N
22H
8r
19N
23H
IMP-H
INP
16r̄
23N
14H
15r̄
24N
15H
13r̄
24N
15H
11r̄
23N
16H
10r̄
22N
17H
S
SOL
RAD
-11B
INP
0r 0r 1r̄
2S
7H
2r̄
0N
8H
4r̄
2N
9H
5r̄
3N
10H
5r̄
5N
11H
P
SOL
RAD
-11A
SPH
TAL
1N
19H
5r̄
0N
20H
9r̄
2S
22H
7r̄
4S
23H
5r̄
5S
24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

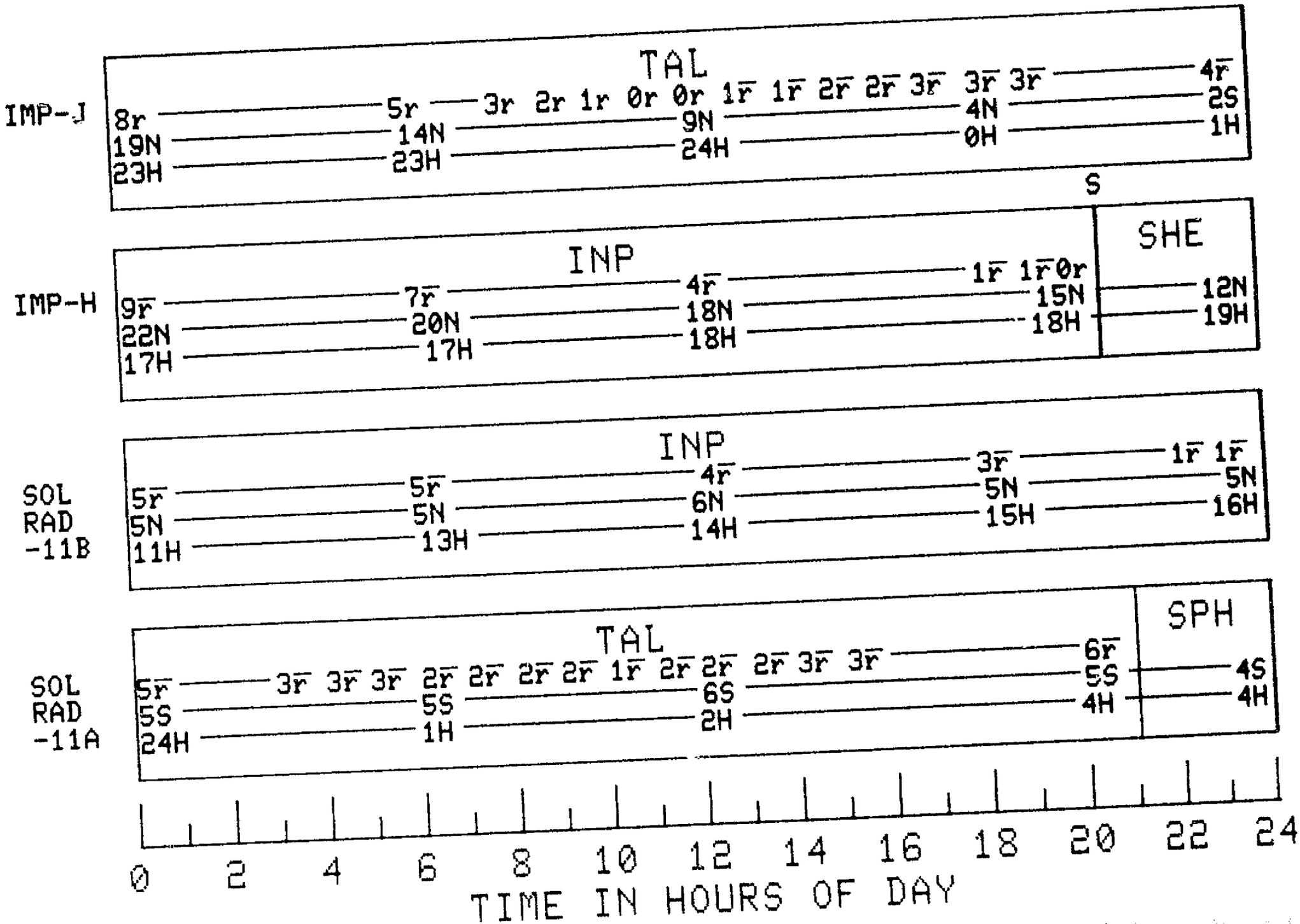
DAY 199 1977


S
INP
SHE
VELA -6B
3r 2r 1r 0r
15N 30N 39N 53N 52N
13H 14H 15H 18H 19H
S
SHE
INP
VELA -6A
0r 0r 1r 3r 4r 4r
51S 49S 31S 16S 1S
8H 8H 11H 11H 12H
S
SHE
INP
VELA -5B
0r 0r 1r 2r 3r
52S 54S 50S 35S 21S
5H 6H 8H 10H 11H
SPH
TAL
VELA -5A
9r 3r 2r 1r 0r 1r 1r 2r 2r 3r 3r 6r
47N 41N 21N 6N 9S
21H 21H 23H 24H 0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

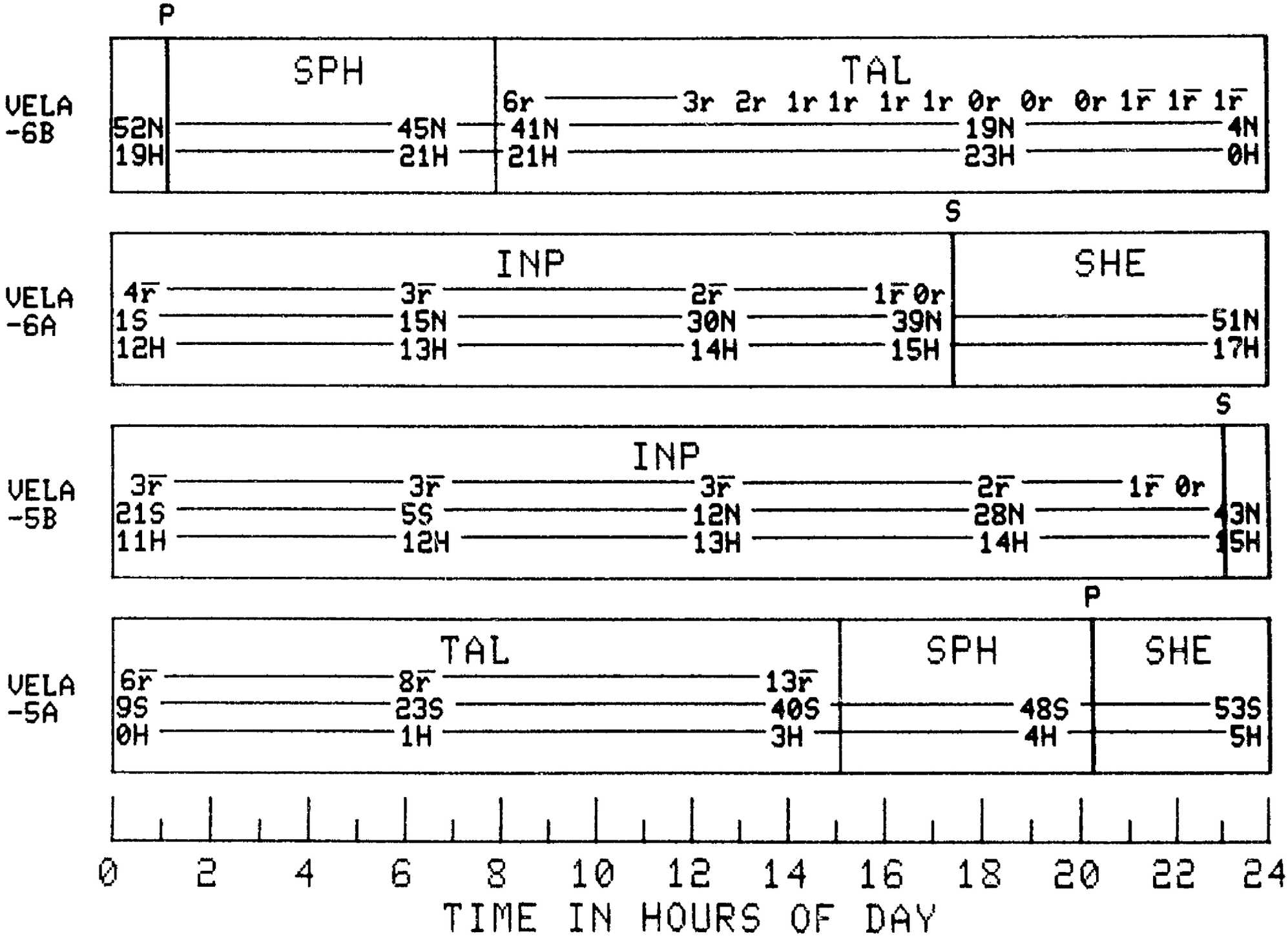
DAY 199 1977


S
SHE
INP
PROG
NOZ-5
78N
15H
0r 0r 1r̄
80N
16H
82N
16H
2r̄
85N
17H
3r̄
87N
19H
3r̄
87N
23H
P
C
C
SHE
SPH
HAWK
EYE-1
66N
1H
73N
0H
79N
22H
75N
21H
73N
21H
77N
22H
84N
3H
48N
10H
18S
22H
30N
23H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

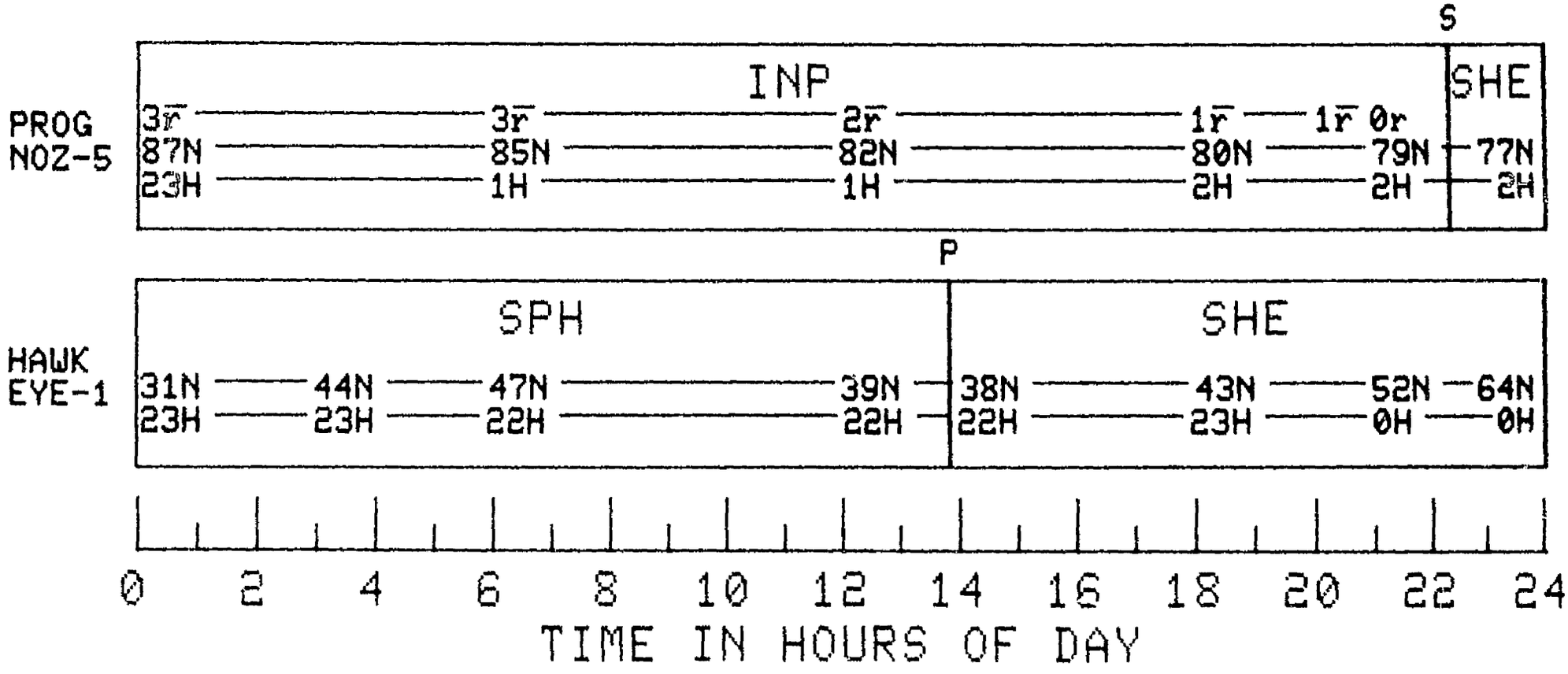
DAY 200 1977

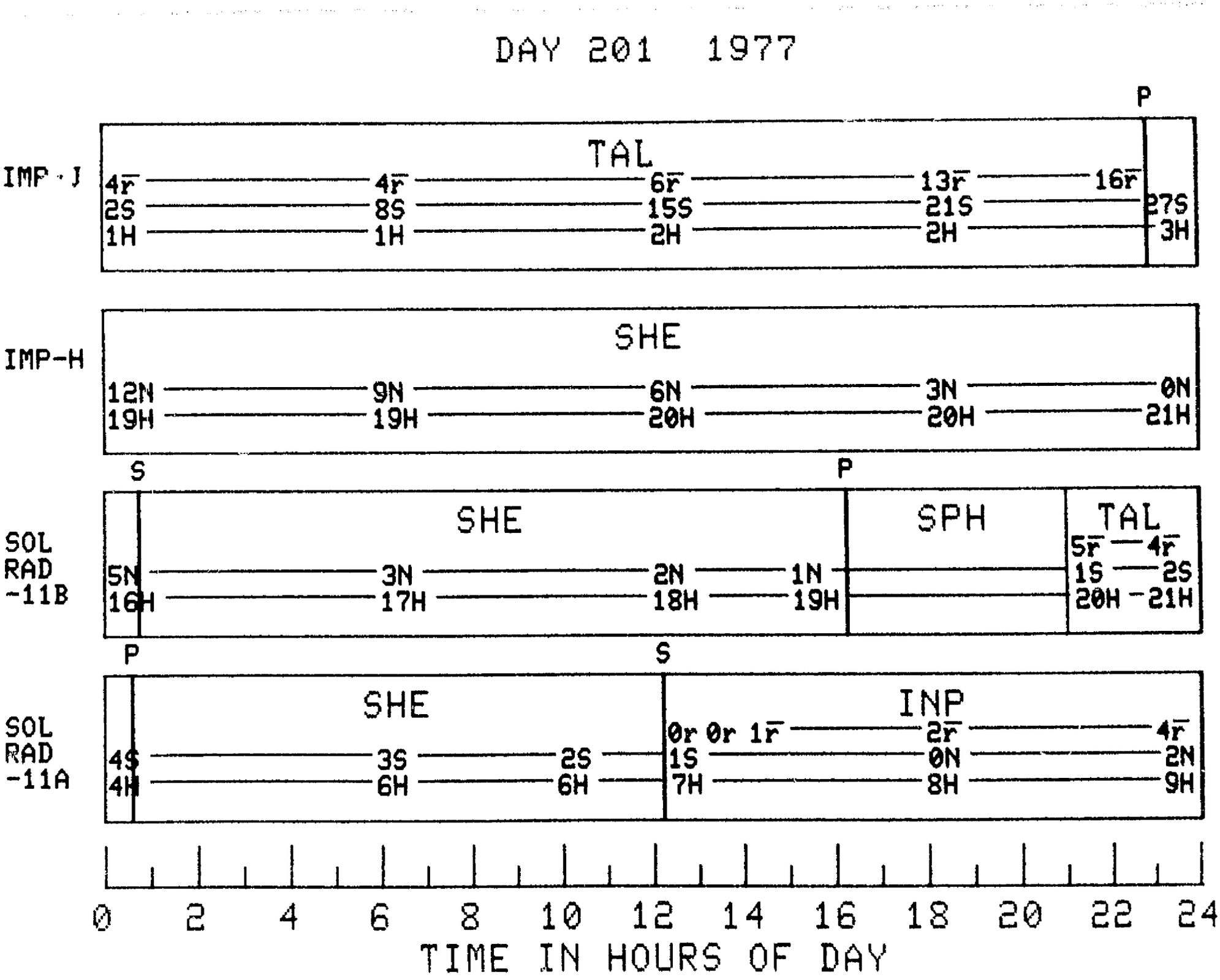

IMP-J
TAL
8r 5r 3r 2r 1r 0r 0r 1r̄ 1r̄ 2r̄ 2r̄ 3r̄ 3r̄ 3r̄ 4r̄
19N 14N 9N 4N 2S
23H 23H 24H 0H 1H
S
IMP-H
INP
SHE
9r̄ 7r̄ 4r̄ 1r̄ 1r̄ 0r
22N 20N 18N 15N 12N
17H 17H 18H 18H 19H
SOL RAD -11B
INP
5r̄ 5r̄ 4r̄ 3r̄ 1r̄ 1r̄
5N 5N 6N 5N 5N
11H 13H 14H 15H 16H
SOL RAD -11A
TAL
SPH
5r̄ 3r̄ 3r̄ 3r̄ 2r̄ 2r̄ 2r̄ 2r̄ 1r̄ 2r̄ 2r̄ 2r̄ 3r̄ 3r̄ 6r̄
5S 5S 6S 5S 4S
24H 1H 2H 4H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 200 1977

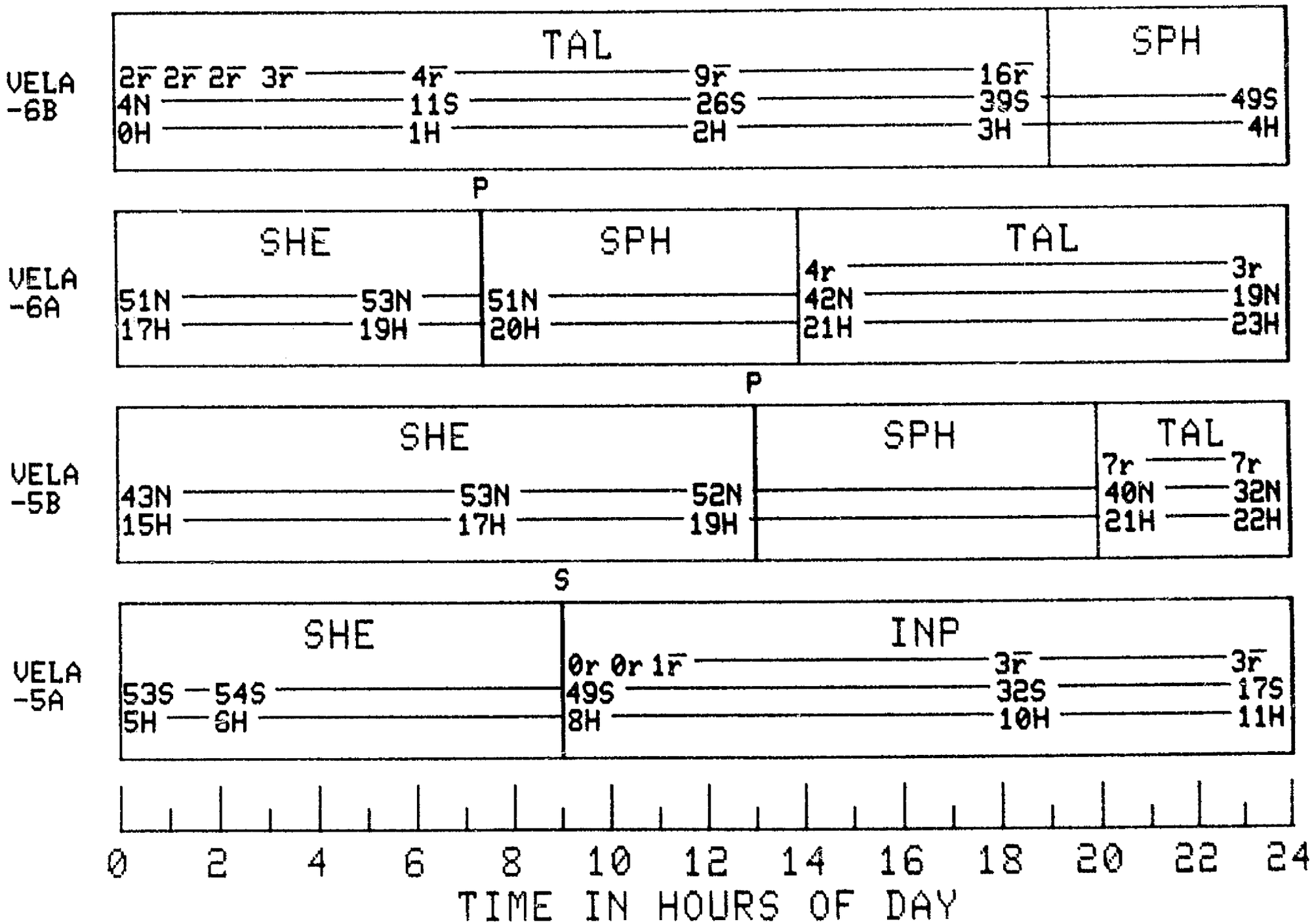

P
SPH
TAL
VELA -6B
52N 19H
45N 21H
6r 41N 21H
3r 2r 1r 1r 1r 1r 0r 0r 0r 1r̄ 1r̄ 1r̄
19N 23H
4N 0H
S
INP
SHE
VELA -6A
4r̄ 1S 12H
3r̄ 15N 13H
2r̄ 30N 14H
1r̄ 0r 39N 15H
51N 17H
S
INP
VELA -5B
3r̄ 21S 11H
3r̄ 5S 12H
3r̄ 12N 13H
2r̄ 28N 14H
1r̄ 0r
43N
15H
P
TAL
SPH
SHE
VELA -5A
6r̄ 9S 0H
8r̄ 23S 1H
13r̄ 40S 3H
48S 4H
53S 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 200 1977

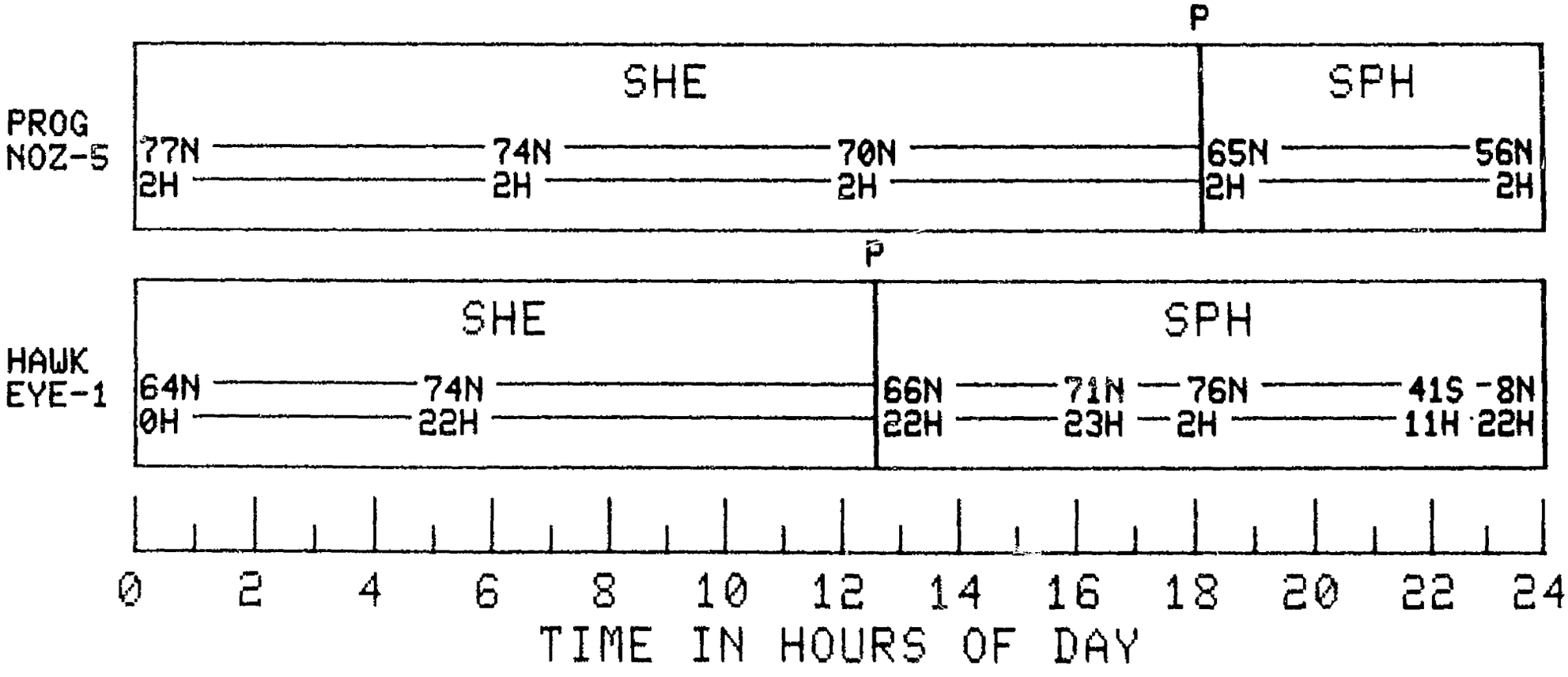

S
INP
SHE
PROG
NOZ-5
3r 3r 2r 1r 1r 0r
87N 85N 82N 80N 79N 77N
23H 1H 1H 2H 2H 2H
P
SPH
SHE
HAWK
EYE-1
31N 44N 47N 39N 38N 43N 52N 64N
23H 23H 22H 22H 22H 23H 0H 0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

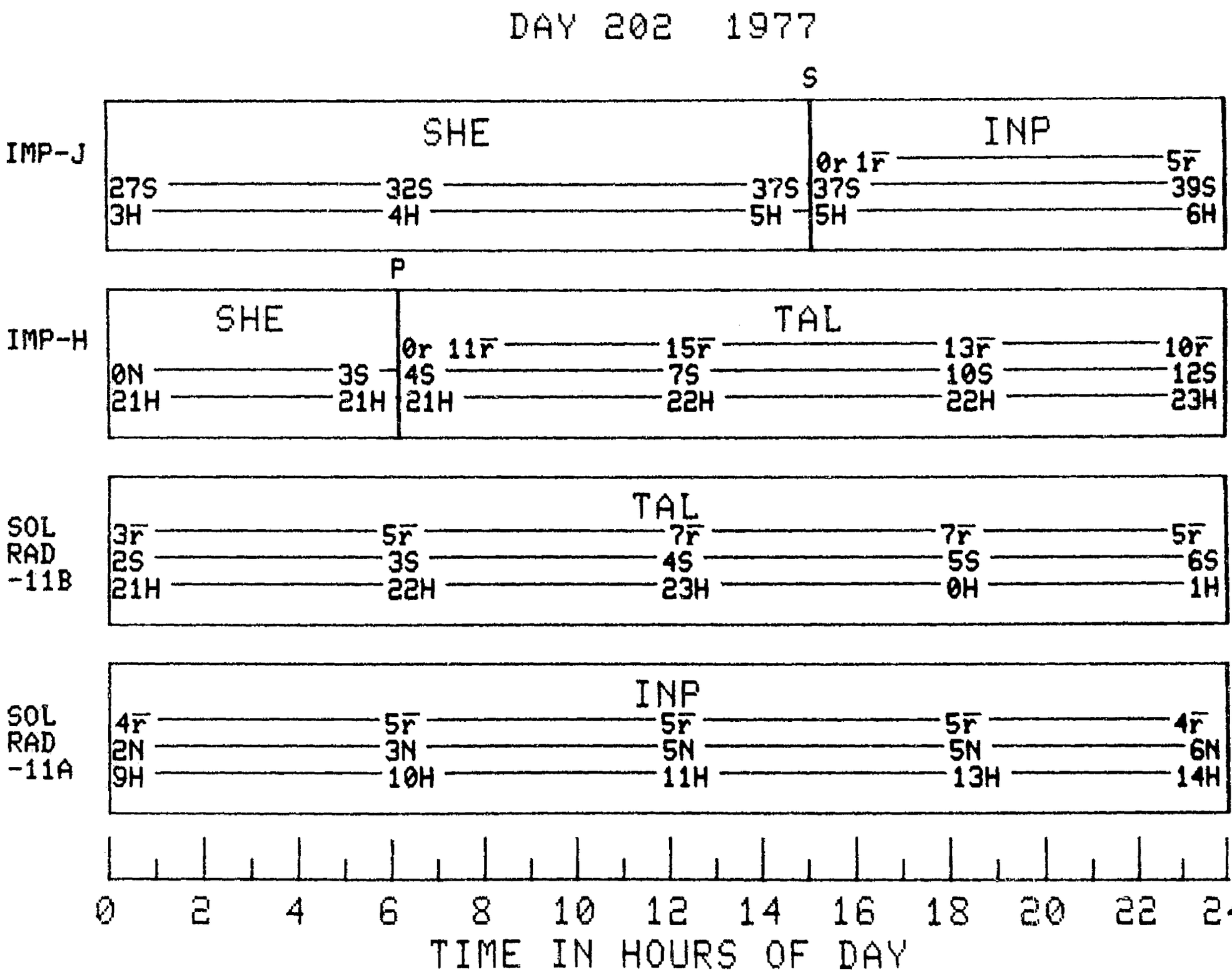

DAY 201 1977
P
IMP · J
TAL
4r̄ 4r̄ 6r̄ 13r̄ 16r̄
2S 8S 15S 21S 27S
1H 1H 2H 2H 3H
IMP-H
SHE
12N 9N 6N 3N 0N
19H 19H 20H 20H 21H
S
P
SOL RAD -11B
SHE
SPH
TAL
5r̄ 4r̄
5N 3N 2N 1N
16H 17H 18H 19H
1S 2S
20H 21H
P
S
SOL RAD -11A
SHE
INP
0r 0r 1r̄ 2r̄ 4r̄
4S 3S 2S 1S 0N 2N
4H 6H 6H 7H 8H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 201 1977

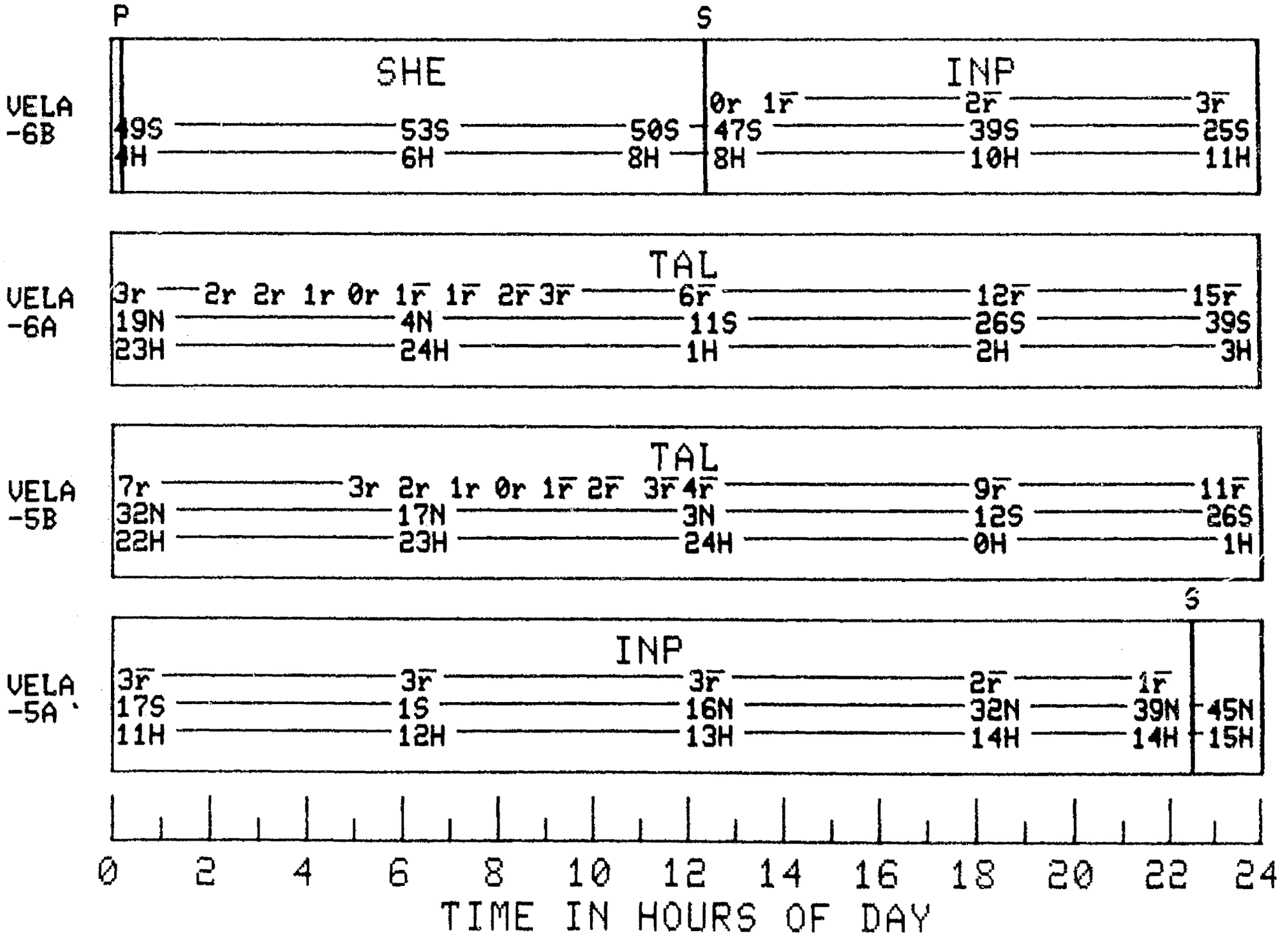

VELA -6B
TAL
SPH
2r 2r 2r 3r
4r
9r
16r
4N
11S
26S
39S
49S
0H
1H
2H
3H
4H
P
VELA -6A
SHE
SPH
TAL
51N
53N
51N
4r
3r
17H
19H
20H
42N
19N
21H
23H
P
VELA -5B
SHE
SPH
TAL
43N
53N
52N
7r
7r
15H
17H
19H
40N
32N
21H
22H
S
VELA -5A
SHE
INP
53S
54S
0r 0r 1r
3r
3r
5H
6H
49S
32S
17S
8H
10H
11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 201 1977

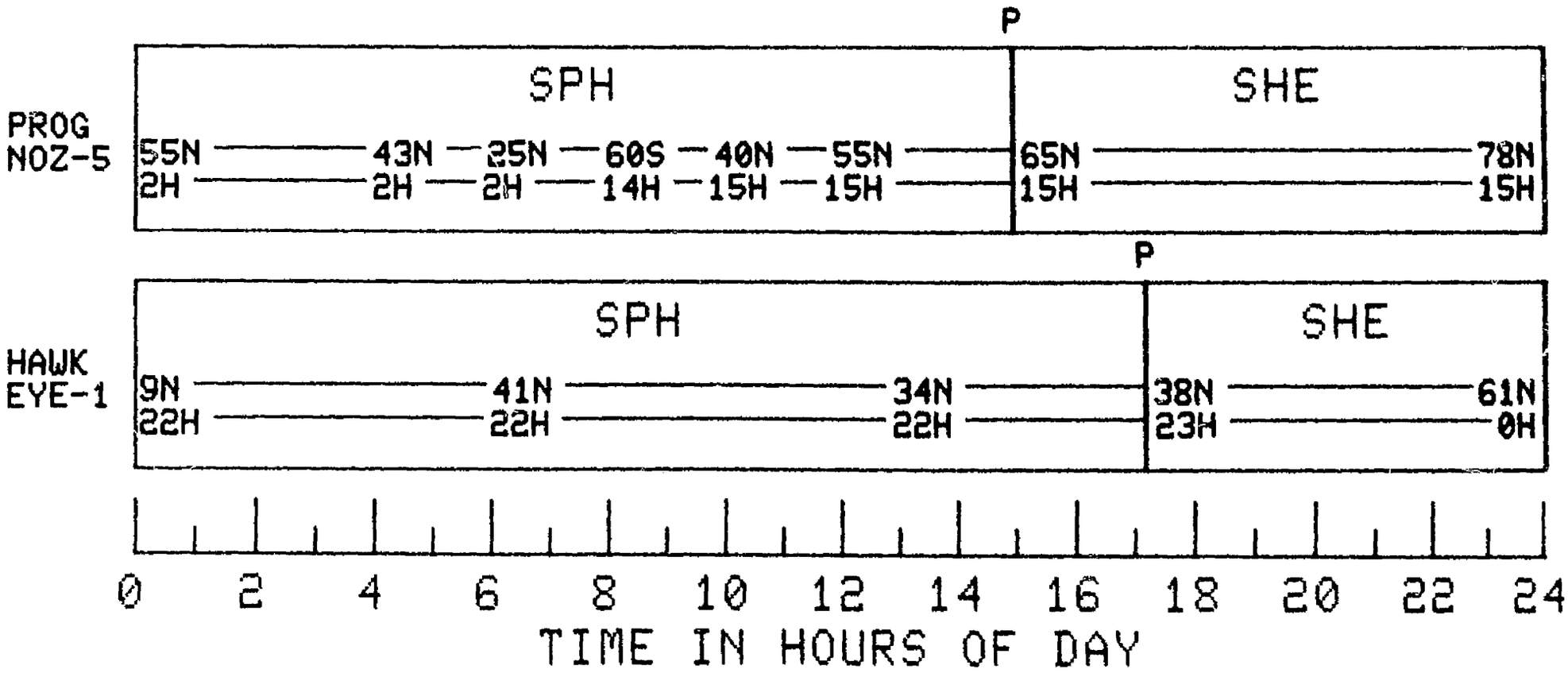

P
SHE
SPH
PROG
NOZ-5
77N
74N
70N
65N
56N
2H
2H
2H
2H
2H
P
SHE
SPH
HAWK
EYE-1
64N
74N
66N
71N
76N
41S
8N
0H
22H
22H
23H
2H
11H
22H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 202 1977
S
IMP-J
SHE
INP
27S
32S
37S
3H
4H
5H
0r 1r̄
5r̄
37S
39S
5H
6H
P
IMP-H
SHE
TAL
0N
3S
21H
21H
0r 11r̄
15r̄
13r̄
10r̄
4S
7S
10S
12S
21H
22H
22H
23H
SOL
RAD
-11B
TAL
3r̄
5r̄
7r̄
7r̄
5r̄
2S
3S
4S
5S
6S
21H
22H
23H
0H
1H
SOL
RAD
-11A
INP
4r̄
5r̄
5r̄
5r̄
4r̄
2N
3N
5N
5N
6N
9H
10H
11H
13H
14H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

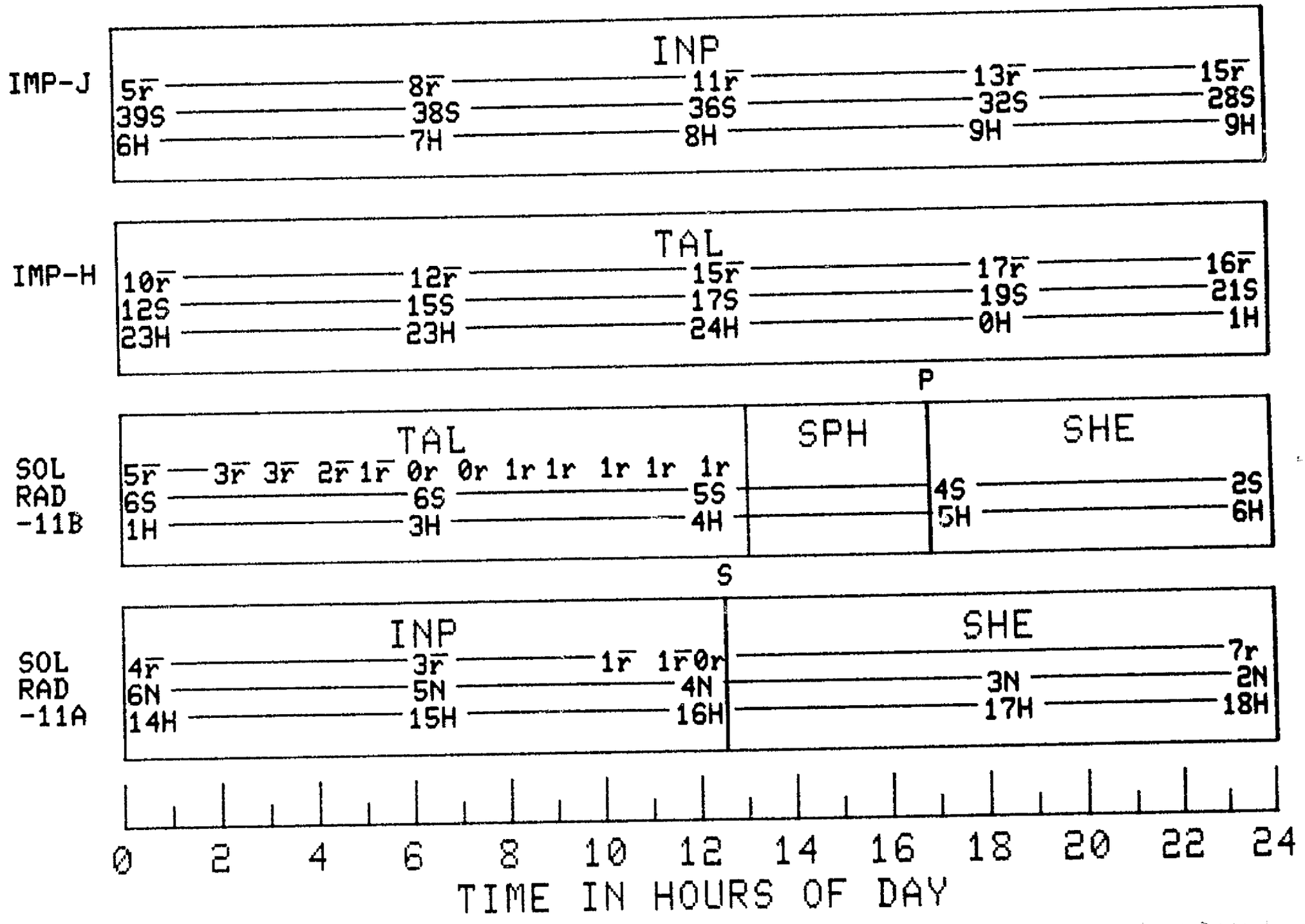
DAY 202 1977


P
S
SHE
INP
VELA -6B
49S 53S 50S
4H 6H 8H
0r 1r 2r 3r
47S 39S 25S
8H 10H 11H
TAL
VELA -6A
3r 2r 2r 1r 0r 1r 1r 2r 3r 6r 12r 15r
19N 4N 11S 26S 39S
23H 24H 1H 2H 3H
TAL
VELA -5B
7r 3r 2r 1r 0r 1r 2r 3r 4r 9r 11r
32N 17N 3N 12S 26S
22H 23H 24H 0H 1H
S
INP
VELA -5A
3r 3r 3r 2r 1r
17S 1S 16N 32N 39N 45N
11H 12H 13H 14H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

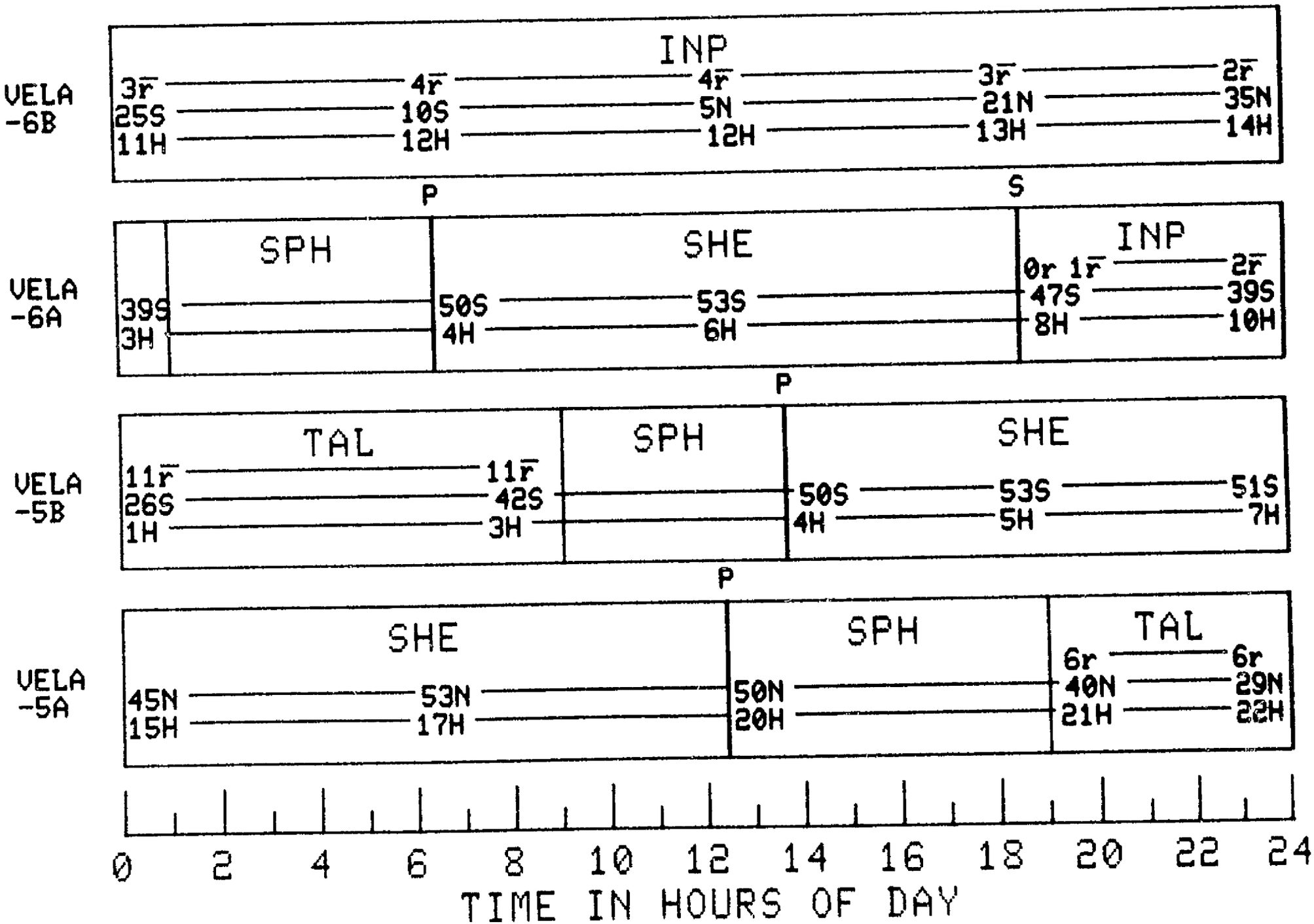
DAY 202 1977


P
SPH
SHE
PROG
NOZ-5
55N 43N 25N 60S 40N 55N 65N 78N
2H 2H 2H 14H 15H 15H 15H 15H
P
SPH
SHE
HAWK
EYE-1
9N 41N 34N 38N 61N
22H 22H 22H 23H 0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

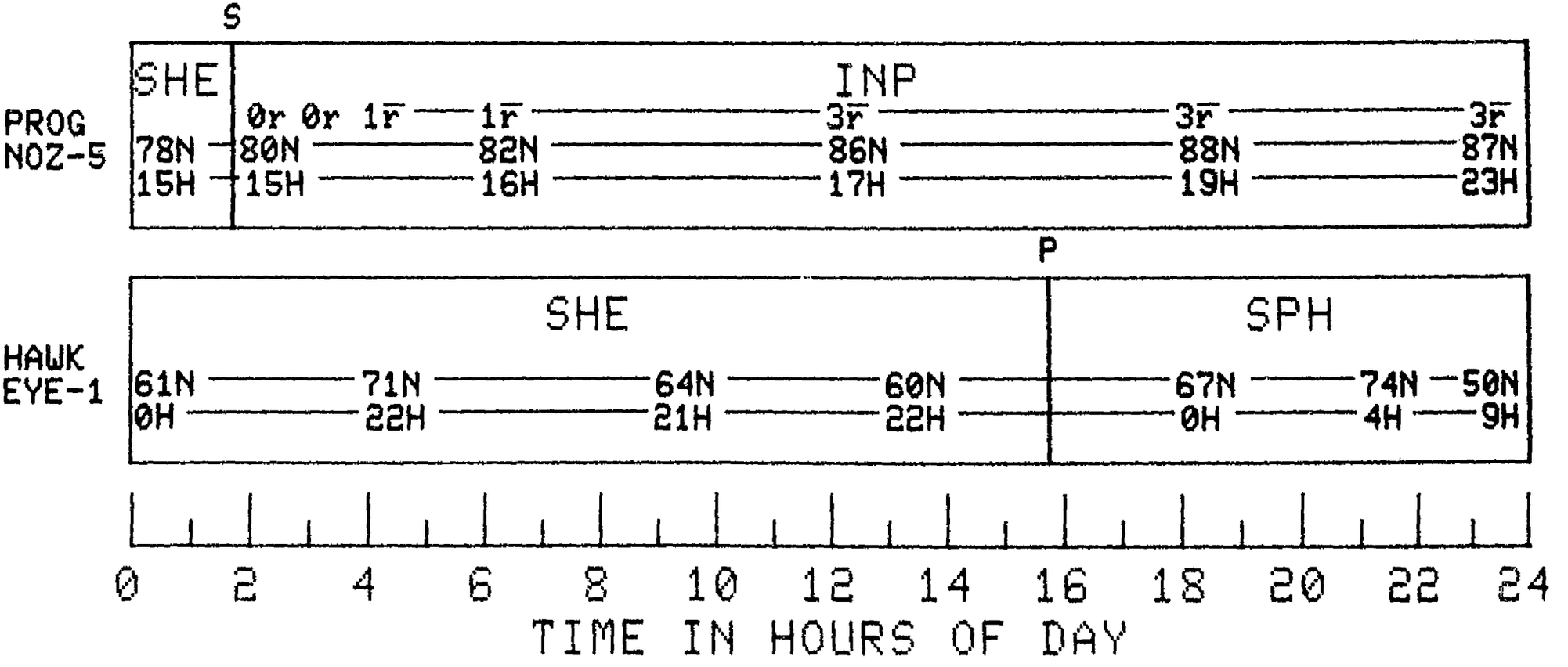
DAY 203 1977


IMP-J
INP
5r̄ 8r̄ 11r̄ 13r̄ 15r̄
39S 38S 36S 32S 28S
6H 7H 8H 9H 9H
IMP-H
TAL
10r̄ 12r̄ 15r̄ 17r̄ 16r̄
12S 15S 17S 19S 21S
23H 23H 24H 0H 1H
P
SOL RAD -11B
TAL
5r̄ 3r̄ 3r̄ 2r̄ 1r̄ 0r 0r 1r 1r 1r 1r 1r
6S 6S 5S
1H 3H 4H
SPH
4S 2S
5H 6H
SHE
S
SOL RAD -11A
INP
4r̄ 3r̄ 1r̄ 1r̄ 0r
6N 5N 4N
14H 15H 16H
SHE
7r
3N 2N
17H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

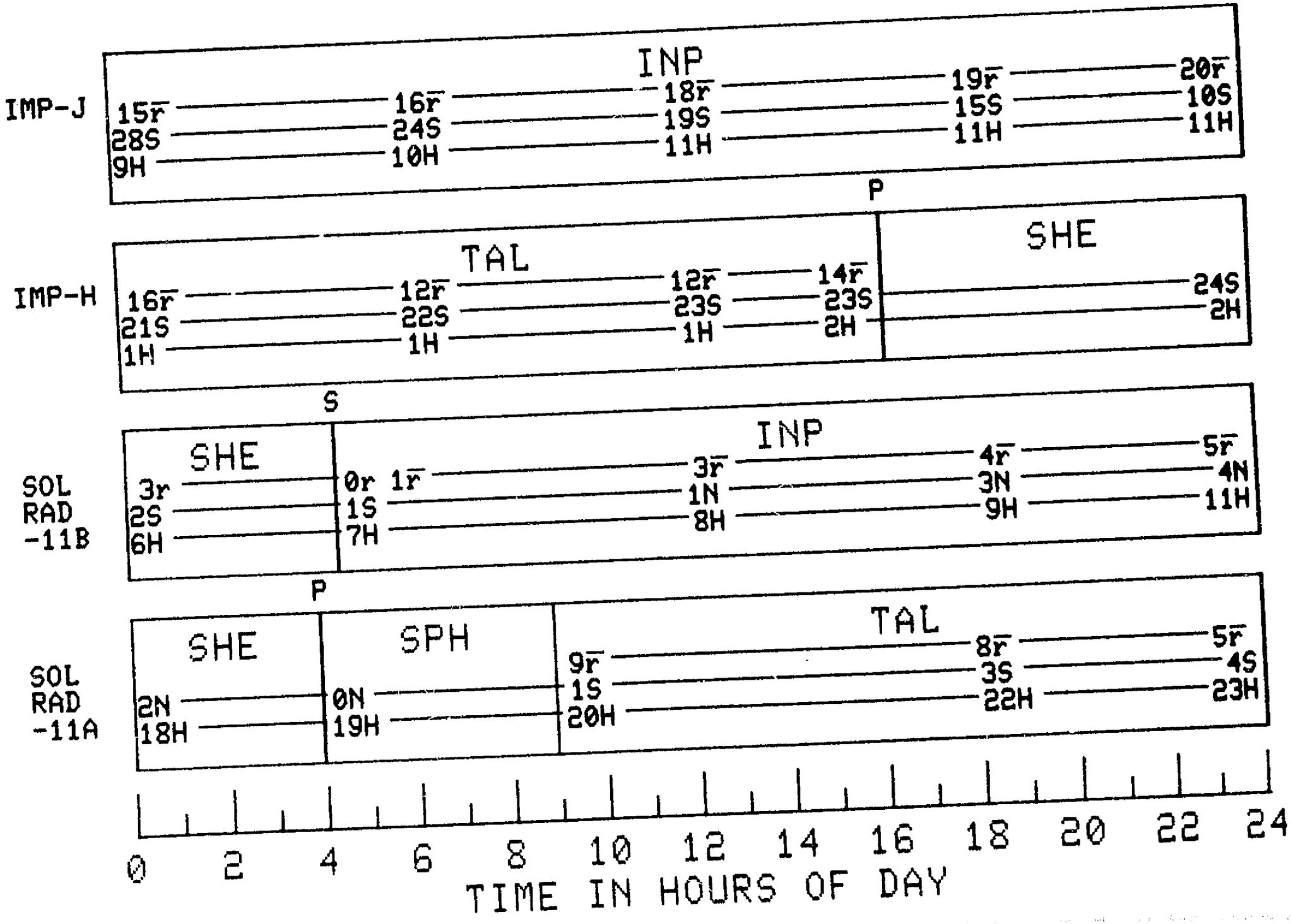
DAY 203 1977


VELA -6B
INP
3r̄ 25S 11H
4r̄ 10S 12H
4r̄ 5N 12H
3r̄ 21N 13H
2r̄ 35N 14H
P
S
VELA -6A
SPH
39S 3H
SHE
50S 4H
53S 6H
INP
0r 1r̄ 47S 8H
2r̄ 39S 10H
P
VELA -5B
TAL
11r̄ 26S 1H
11r̄ 42S 3H
SPH
SHE
50S 4H
53S 5H
51S 7H
P
VELA -5A
SHE
45N 15H
53N 17H
SPH
50N 20H
TAL
6r 40N 21H
6r 29N 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

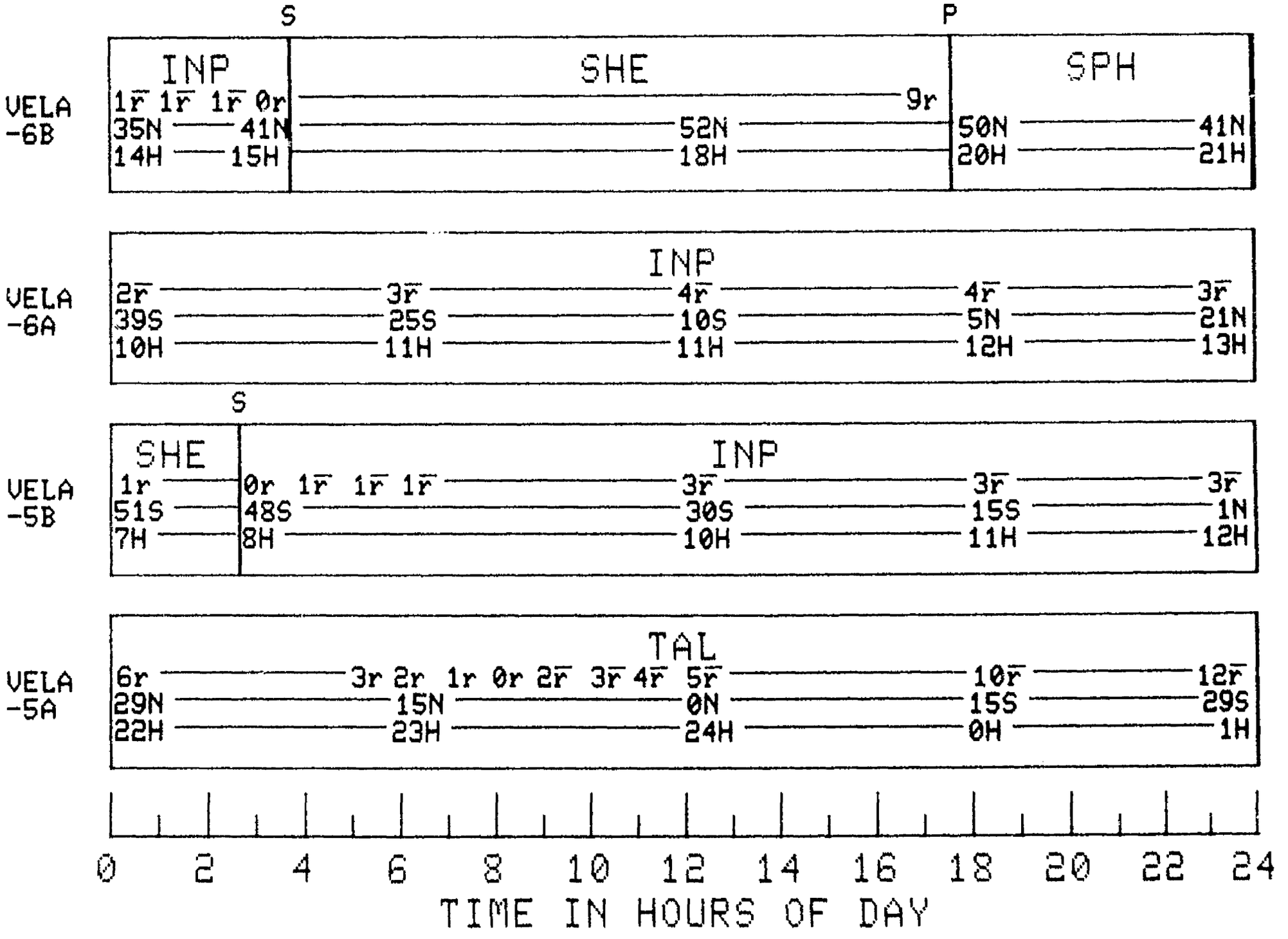
DAY 203 1977


S
SHE
INP
PROG
NOZ-5
0r 0r 1r 1r 3r 3r 3r
78N 80N 82N 86N 88N 87N
15H 15H 16H 17H 19H 23H
P
SHE
SPH
HAWK
EYE-1
61N 71N 64N 60N 67N 74N 50N
0H 22H 21H 22H 0H 4H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

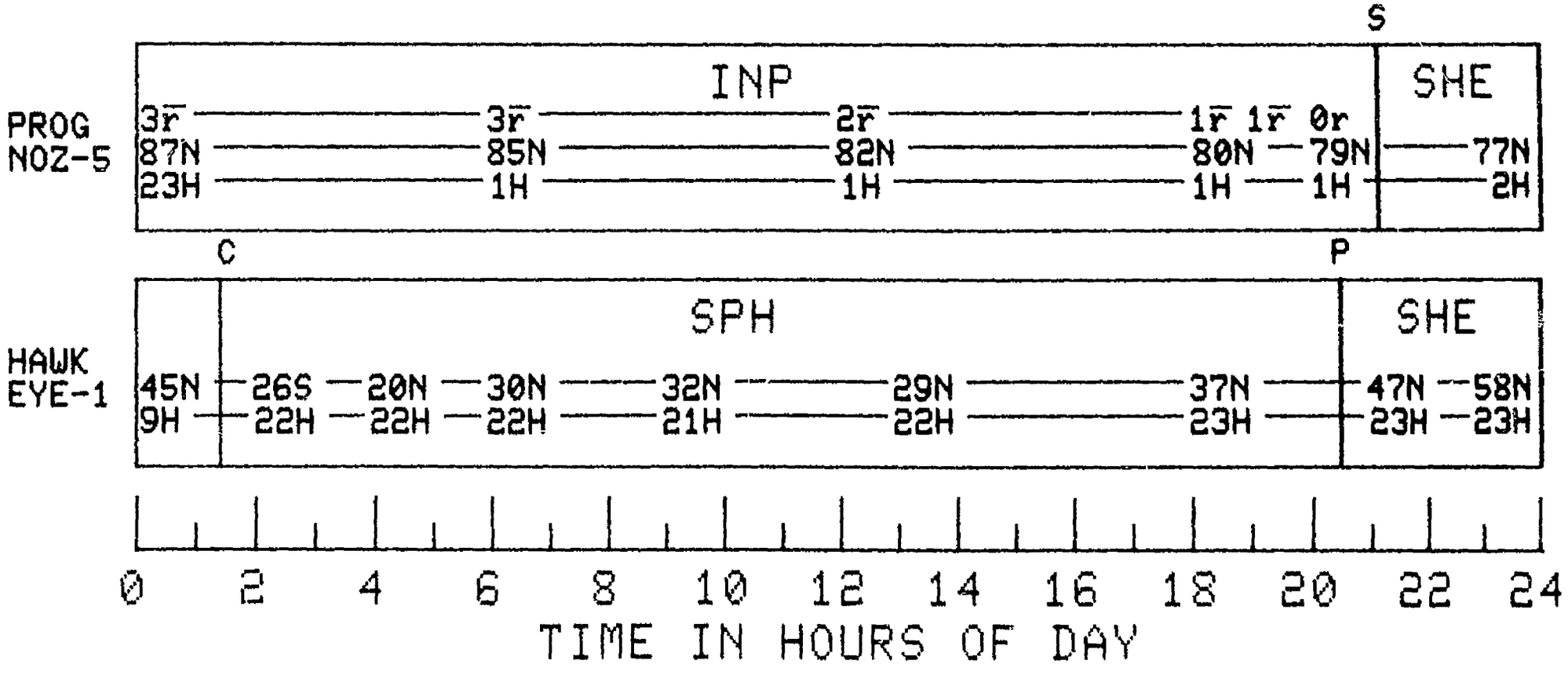
DAY 204 1977


IMP-J
INP
15r̄ 28S 9H
16r̄ 24S 10H
18r̄ 19S 11H
19r̄ 15S 11H
20r̄ 10S 11H
P
IMP-H
TAL
16r̄ 21S 1H
12r̄ 22S 1H
12r̄ 23S 1H
14r̄ 23S 2H
SHE
24S 2H
S
SOL RAD -11B
SHE
3r 2S 6H
INP
0r 1r 1S 7H
3r̄ 1N 8H
4r̄ 3N 9H
5r̄ 4N 11H
P
SOL RAD -11A
SHE
2N 18H
SPH
0N 19H
TAL
9r̄ 1S 20H
8r̄ 3S 22H
5r̄ 4S 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

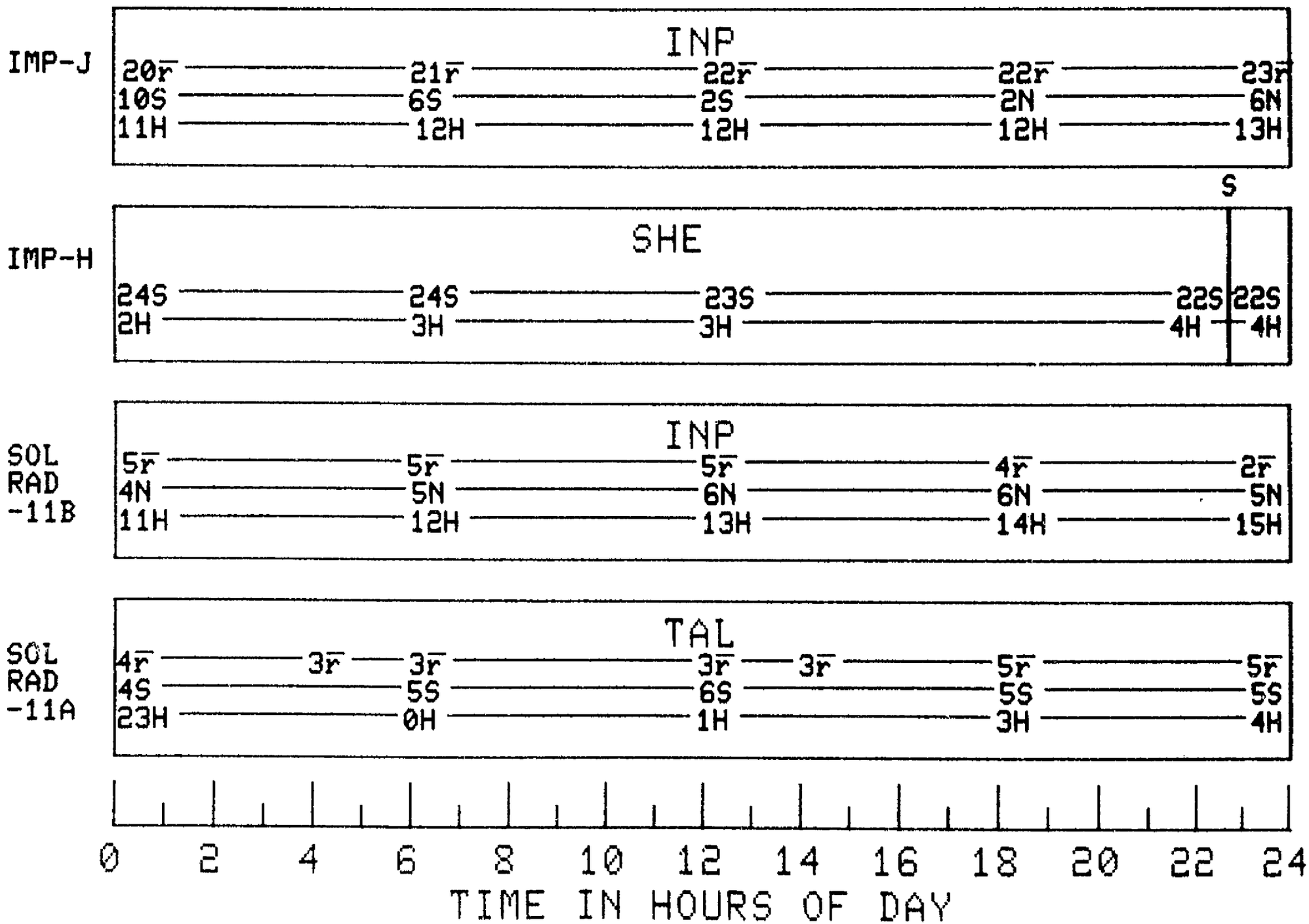
DAY 204 1977


S
P
INP
SHE
SPH
VELA -6B
1r̄ 1r̄ 1r̄ 0r
9r
35N 41N
52N
50N 41N
14H 15H
18H
20H 21H
INP
VELA -6A
2r̄ 3r̄ 4r̄ 4r̄ 3r̄
39S 25S 10S 5N 21N
10H 11H 11H 12H 13H
S
SHE
INP
VELA -5B
1r 0r 1r̄ 1r̄ 1r̄ 3r̄ 3r̄ 3r̄
51S 48S 30S 15S 1N
7H 8H 10H 11H 12H
TAL
VELA -5A
6r 3r 2r 1r 0r 2r̄ 3r̄ 4r̄ 5r̄ 10r̄ 12r̄
29N 15N 0N 15S 29S
22H 23H 24H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

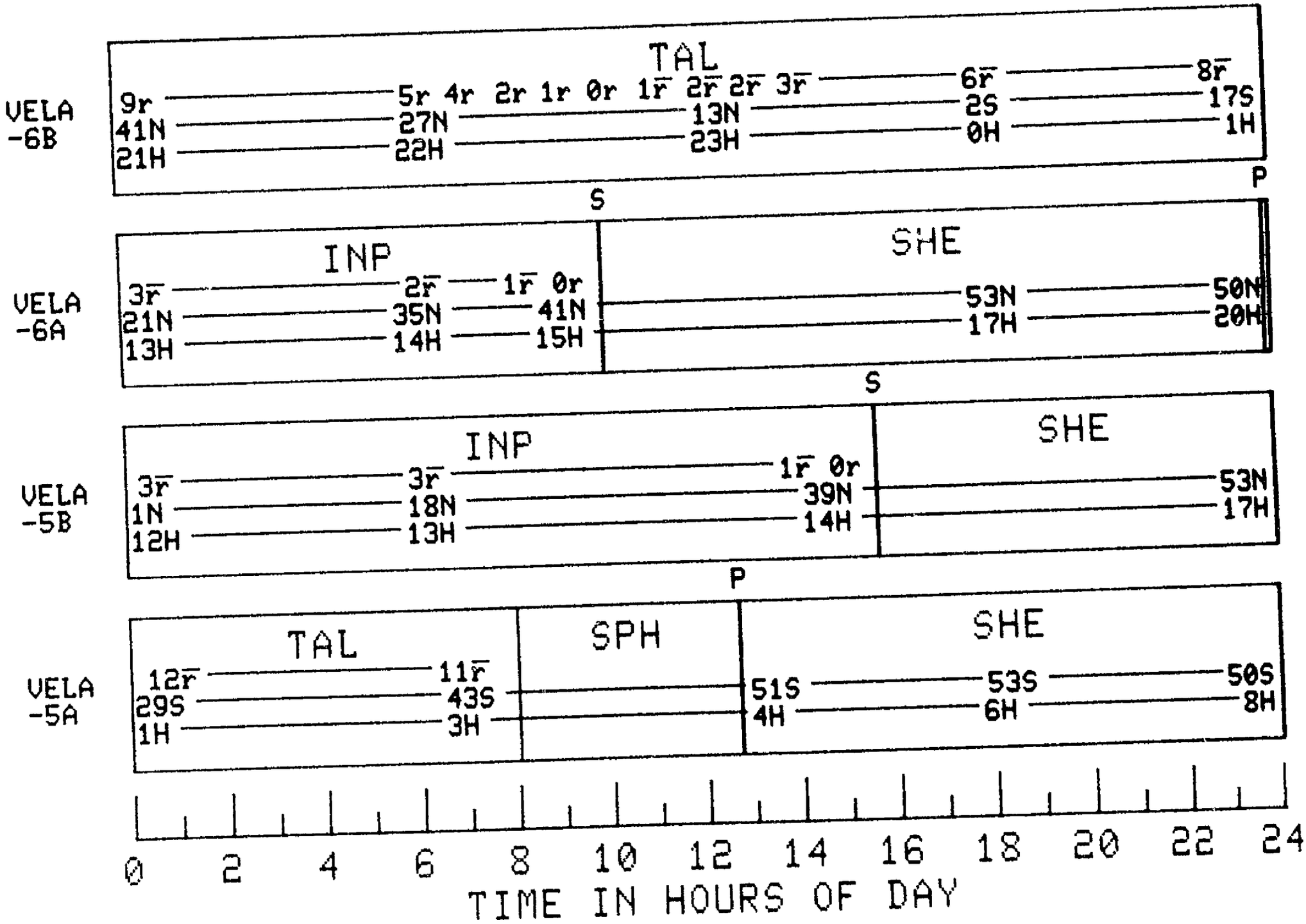
DAY 204 1977


S
INP
SHE
PROG
NOZ-5
3r̄ 3r̄ 2r̄ 1r̄ 1r̄ 0r
87N 85N 82N 80N 79N 77N
23H 1H 1H 1H 1H 2H
C
P
SPH
SHE
HAWK
EYE-1
45N 26S 20N 30N 32N 29N 37N 47N 58N
9H 22H 22H 22H 21H 22H 23H 23H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

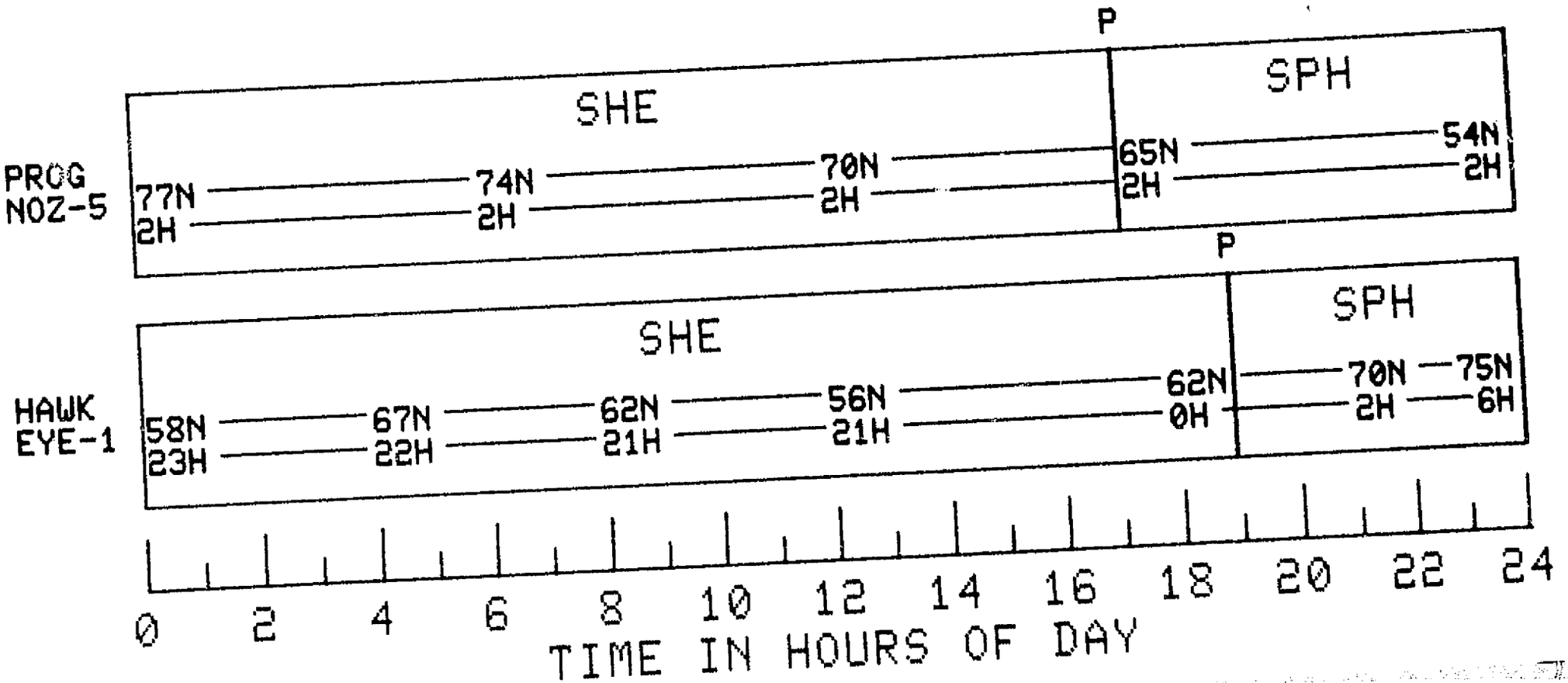
DAY 205 1977


IMP-J
INP
20r 21r 22r 22r 23r
10S 6S 2S 2N 6N
11H 12H 12H 12H 13H
S
IMP-H
SHE
24S 24S 23S 22S 22S
2H 3H 3H 4H 4H
SOL RAD -11B
INP
5r 5r 5r 4r 2r
4N 5N 6N 6N 5N
11H 12H 13H 14H 15H
SOL RAD -11A
TAL
4r 3r 3r 3r 3r 5r 5r
4S 5S 6S 5S 5S
23H 0H 1H 3H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

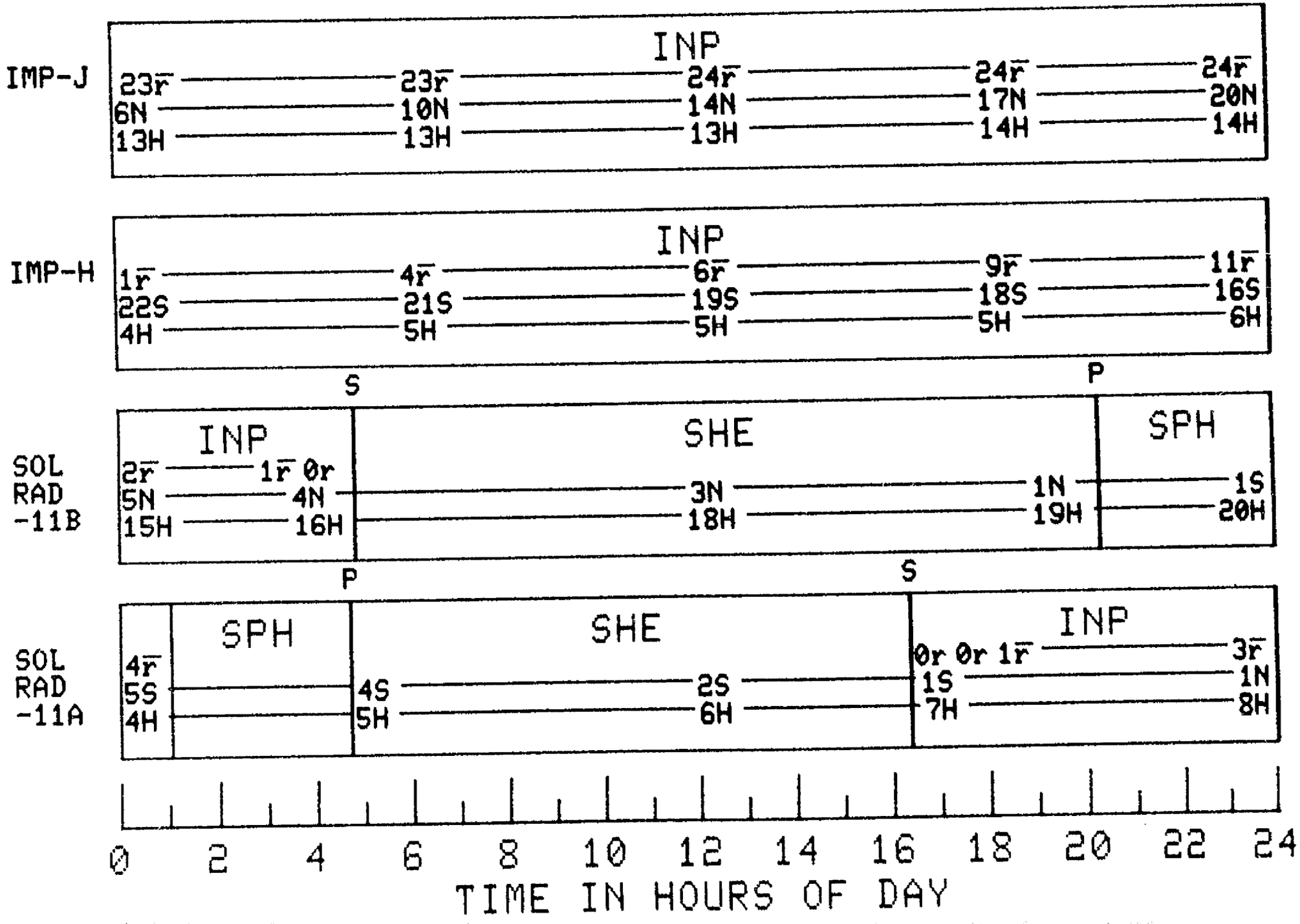
DAY 205 1977


VELA -6B
TAL
9r 5r 4r 2r 1r 0r 1r̄ 2r̄ 2r̄ 3r̄ 6r̄ 8r̄
41N 27N 13N 2S 17S
21H 22H 23H 0H 1H
P
S
VELA -6A
INP
3r̄ 2r̄ 1r̄ 0r
21N 35N 41N
13H 14H 15H
SHE
53N 50N
17H 20H
S
VELA -5B
INP
3r̄ 3r̄ 1r̄ 0r
1N 18N 39N
12H 13H 14H
SHE
53N
17H
P
VELA -5A
TAL
12r̄ 11r̄
29S 43S
1H 3H
SPH
SHE
51S 53S 50S
4H 6H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

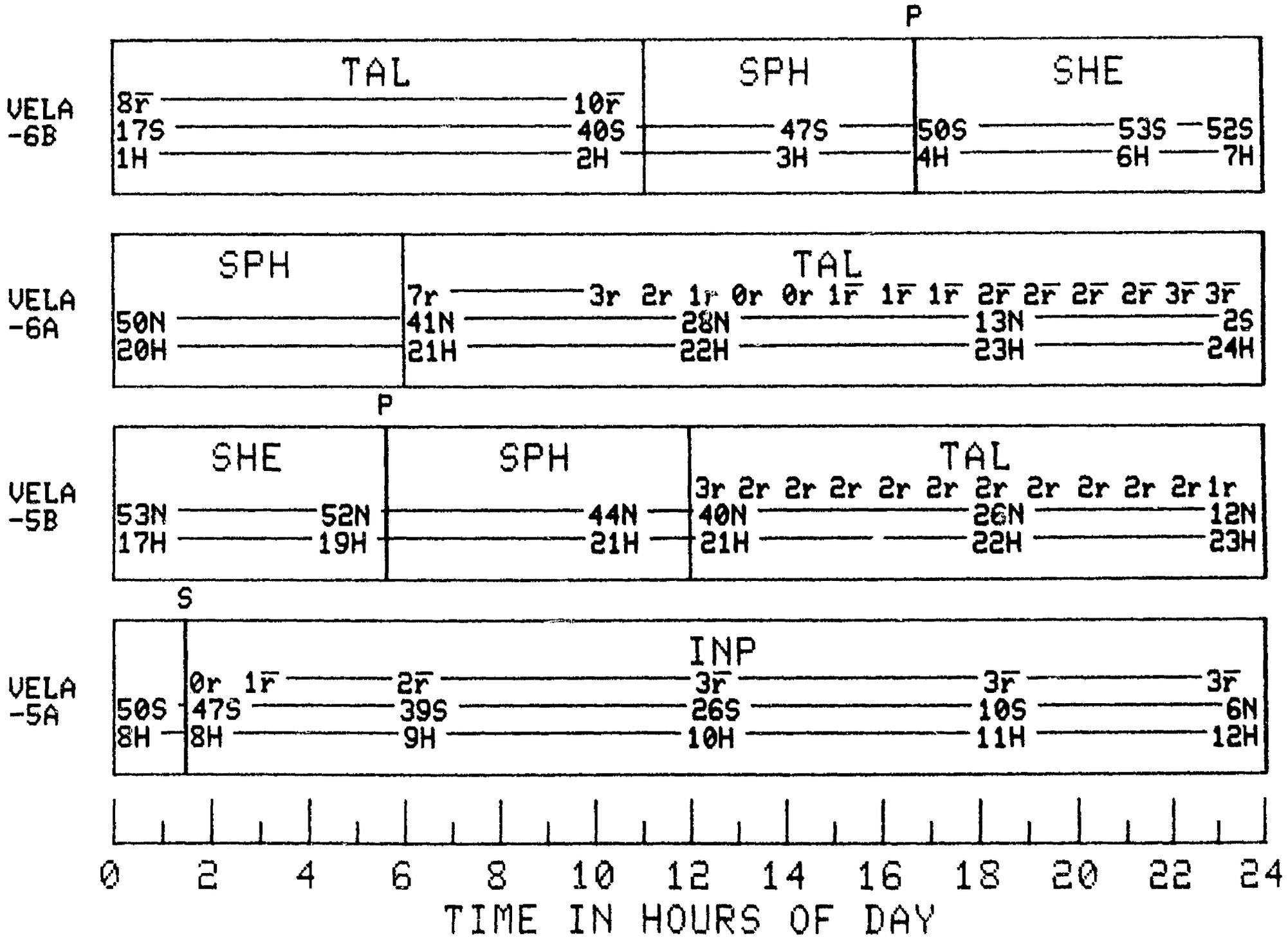
DAY 205 1977


P
SHE
SPH
PROG
NOZ-5
77N
2H
74N
2H
70N
2H
65N
2H
54N
2H
P
SHE
SPH
HAWK
EYE-1
58N
23H
67N
22H
62N
21H
56N
21H
62N
0H
70N
2H
75N
6H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

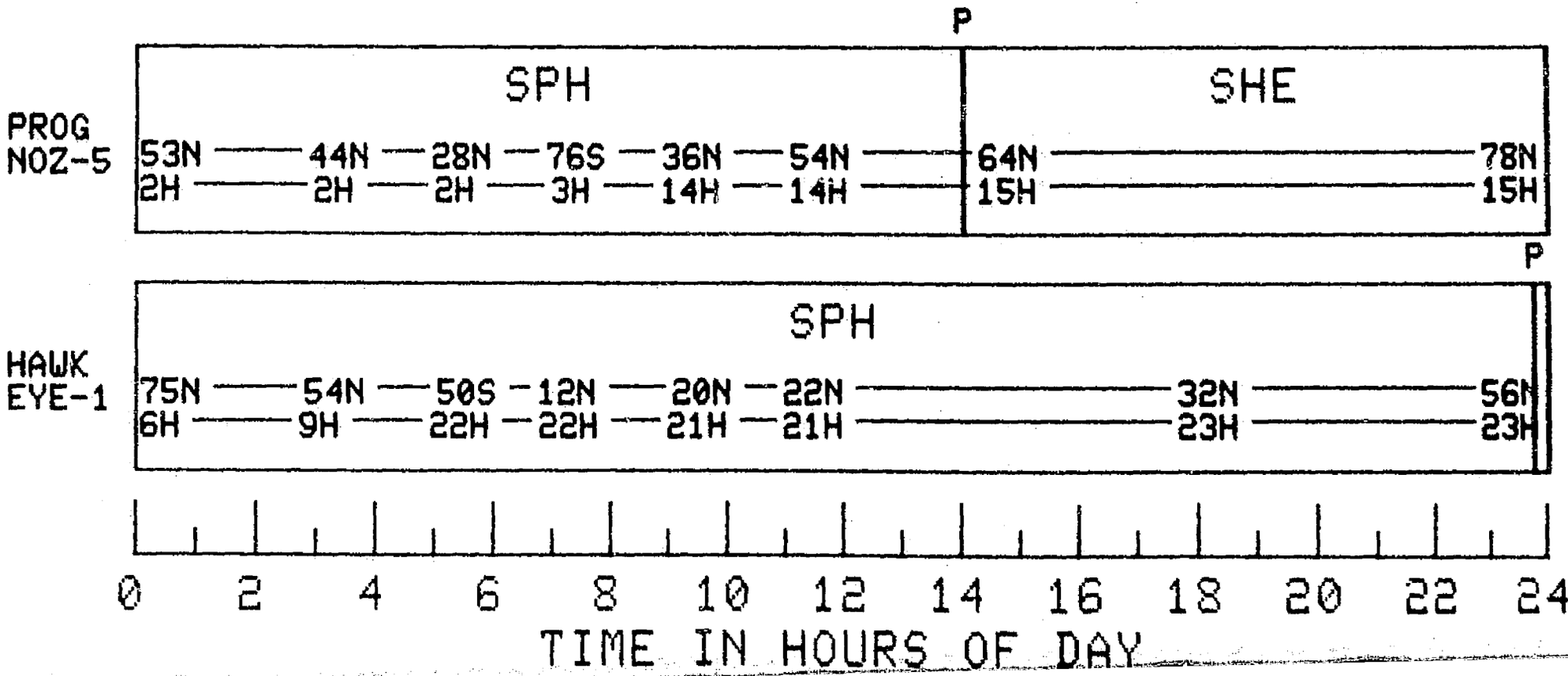
DAY 206 1977


IMP-J
INP
23r̄ 23r̄ 24r̄ 24r̄ 24r̄
6N 10N 14N 17N 20N
13H 13H 13H 14H 14H
IMP-H
INP
1r̄ 4r̄ 6r̄ 9r̄ 11r̄
22S 21S 19S 18S 16S
4H 5H 5H 5H 6H
S
P
SOL RAD -11B
INP
SHE
SPH
2r̄ 1r̄ 0r
5N 4N
15H 16H
3N 18H
1N 19H
1S 20H
P
S
SOL RAD -11A
SPH
SHE
INP
4r̄
5S
4H
4S 5H
2S 6H
0r 0r 1r̄
1S 7H
3r̄ 1N 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

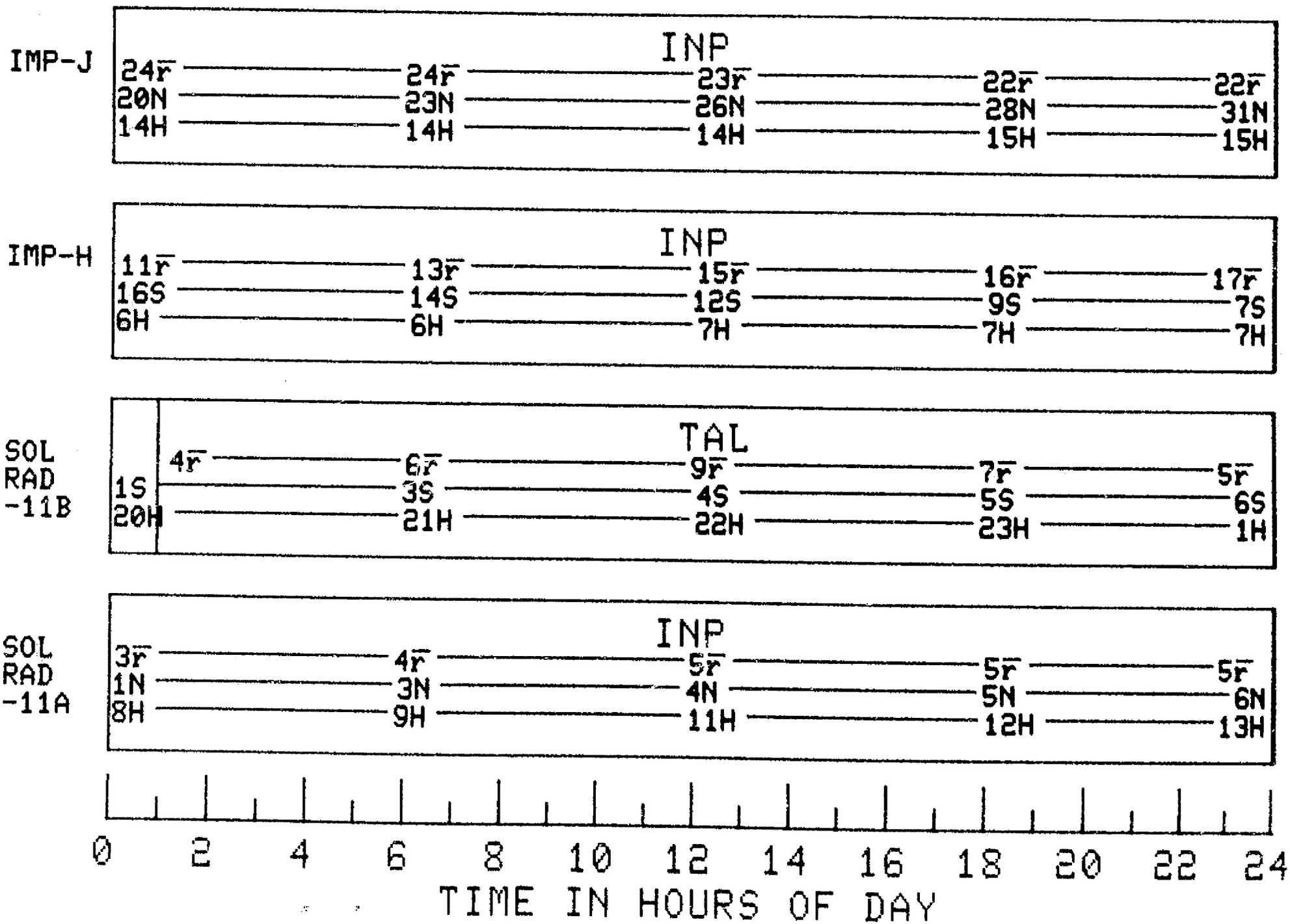
DAY 206 1977


VELA -6B
TAL
SPH
SHE
P
8r 10r
17S 40S 47S 50S 53S 52S
1H 2H 3H 4H 6H 7H
VELA -6A
SPH
TAL
7r 3r 2r 1r 0r 0r 1r 1r 1r 2r 2r 2r 2r 3r 3r
50N 41N 28N 13N 2S
20H 21H 22H 23H 24H
VELA -5B
P
SHE
SPH
TAL
3r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 1r
53N 52N 44N 40N 26N 12N
17H 19H 21H 21H 22H 23H
VELA -5A
S
INP
0r 1r 2r 3r 3r 3r
50S 47S 39S 26S 10S 6N
8H 8H 9H 10H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

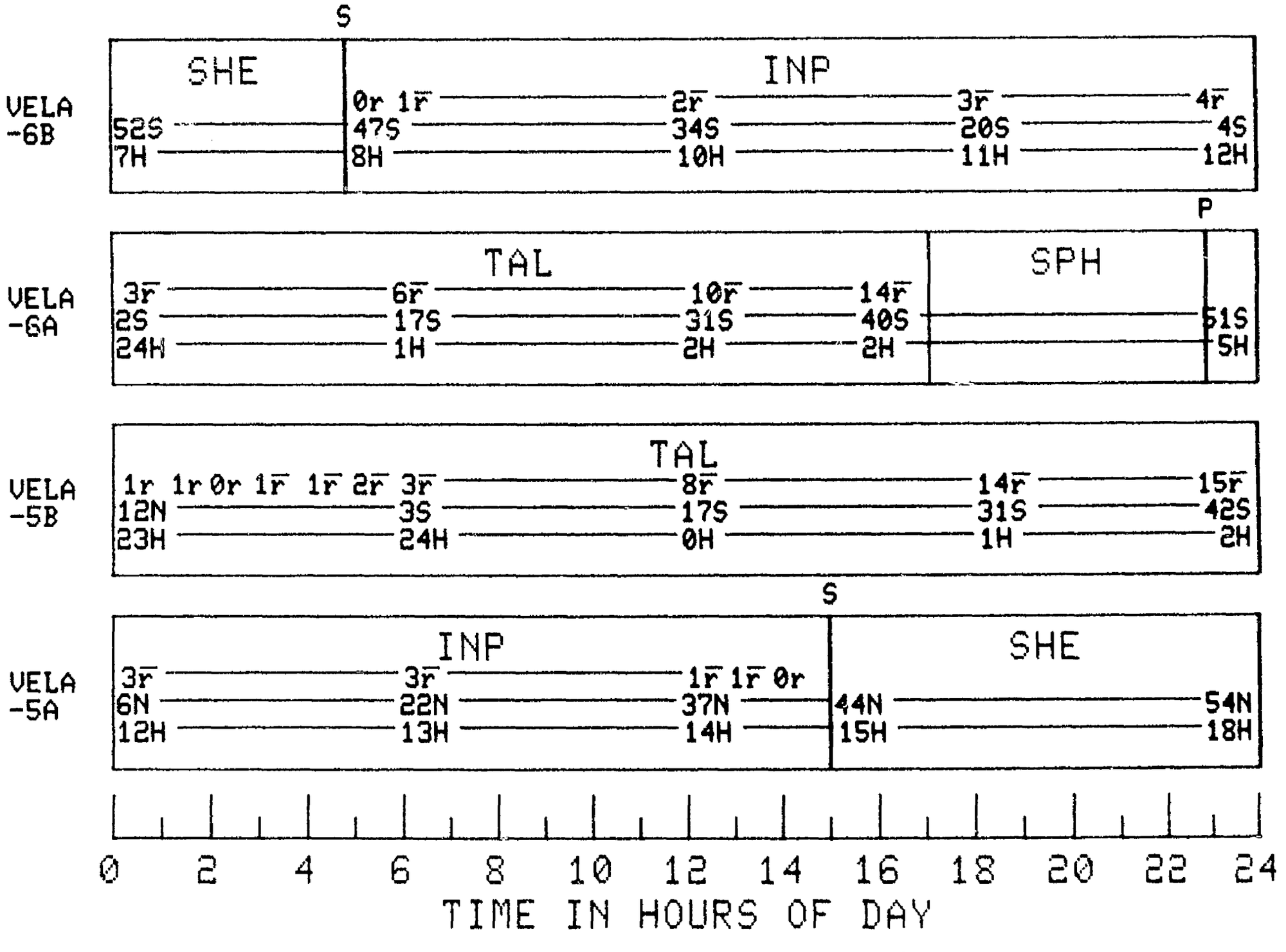
DAY 206 1977


P
SPH
SHE
PROG
NOZ-5
53N 44N 28N 76S 36N 54N 64N 78N
2H 2H 2H 3H 14H 14H 15H 15H
P
SPH
HAWK
EYE-1
75N 54N 50S 12N 20N 22N 32N 56N
6H 9H 22H 22H 21H 21H 23H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

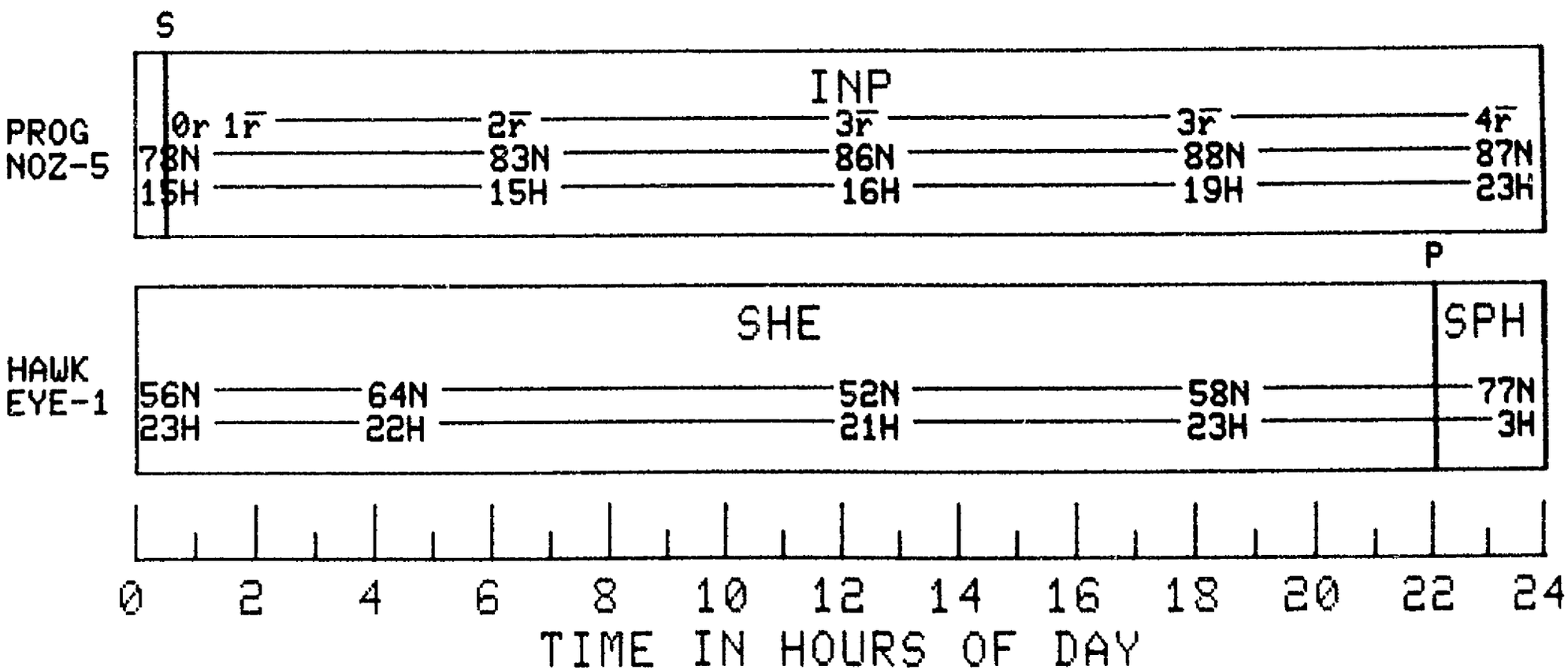
DAY 207 1977


IMP-J
INP
24r 24r 23r 22r 22r
20N 23N 26N 28N 31N
14H 14H 14H 15H 15H
IMP-H
INP
11r 13r 15r 16r 17r
16S 14S 12S 9S 7S
6H 6H 7H 7H 7H
SOL RAD -11B
TAL
1S 4r 6r 9r 7r 5r
20H 3S 4S 5S 6S
21H 22H 23H 1H
SOL RAD -11A
INP
3r 4r 5r 5r 5r
1N 3N 4N 5N 6N
8H 9H 11H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

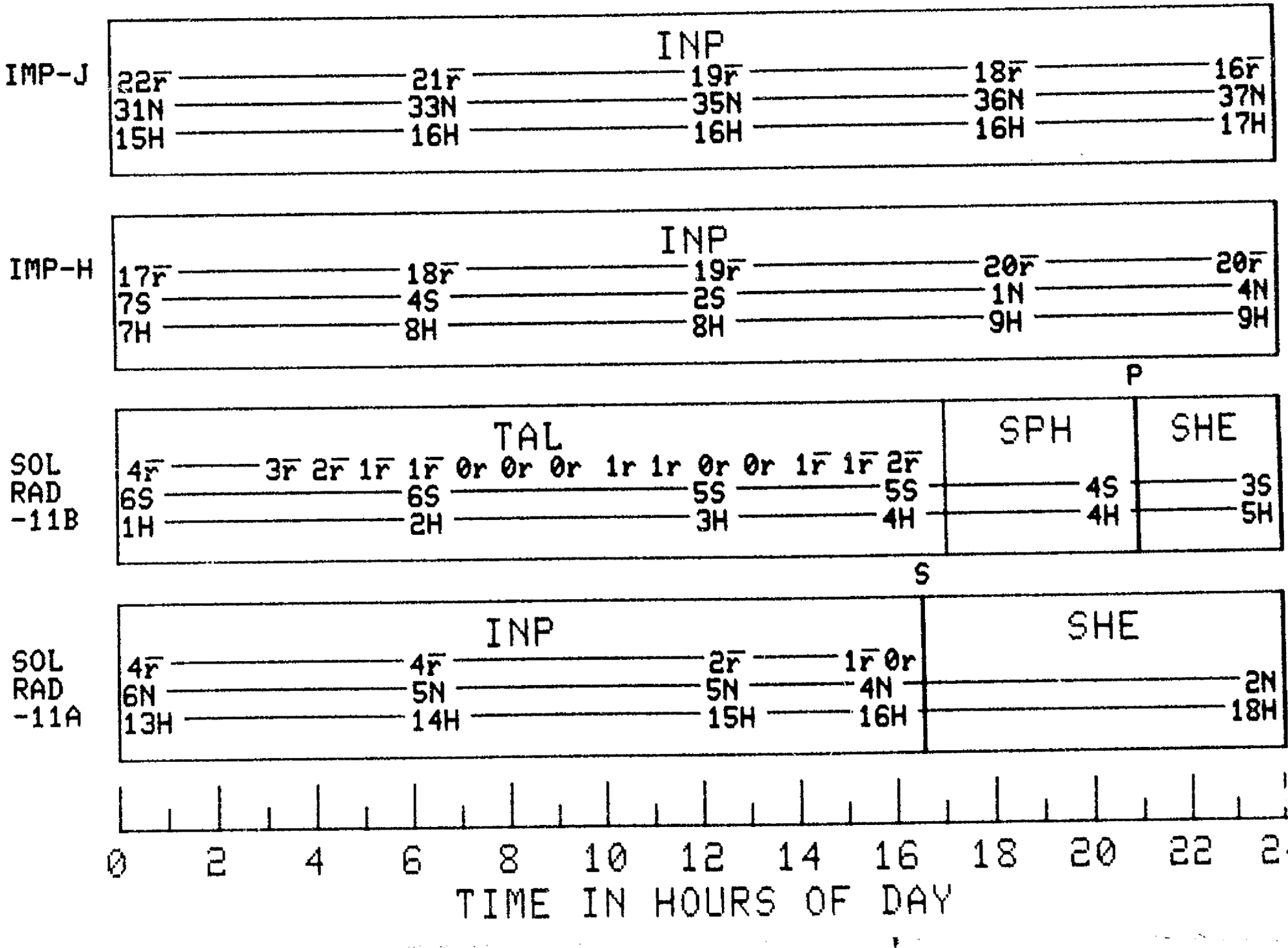
DAY 207 1977


S
SHE
INP
VELA -6B
52S 7H
0r 1r 47S 8H
2r 34S 10H
3r 20S 11H
4r 4S 12H
P
TAL
SPH
VELA -6A
3r 2S 24H
6r 17S 1H
10r 31S 2H
14r 40S 2H
51S 5H
TAL
VELA -5B
1r 1r 0r 1r 1r 2r 3r 12N 23H
8r 3S 24H
14r 17S 0H
15r 31S 1H
42S 2H
S
INP
SHE
VELA -5A
3r 6N 12H
3r 22N 13H
1r 1r 0r 37N 14H
44N 15H
54N 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

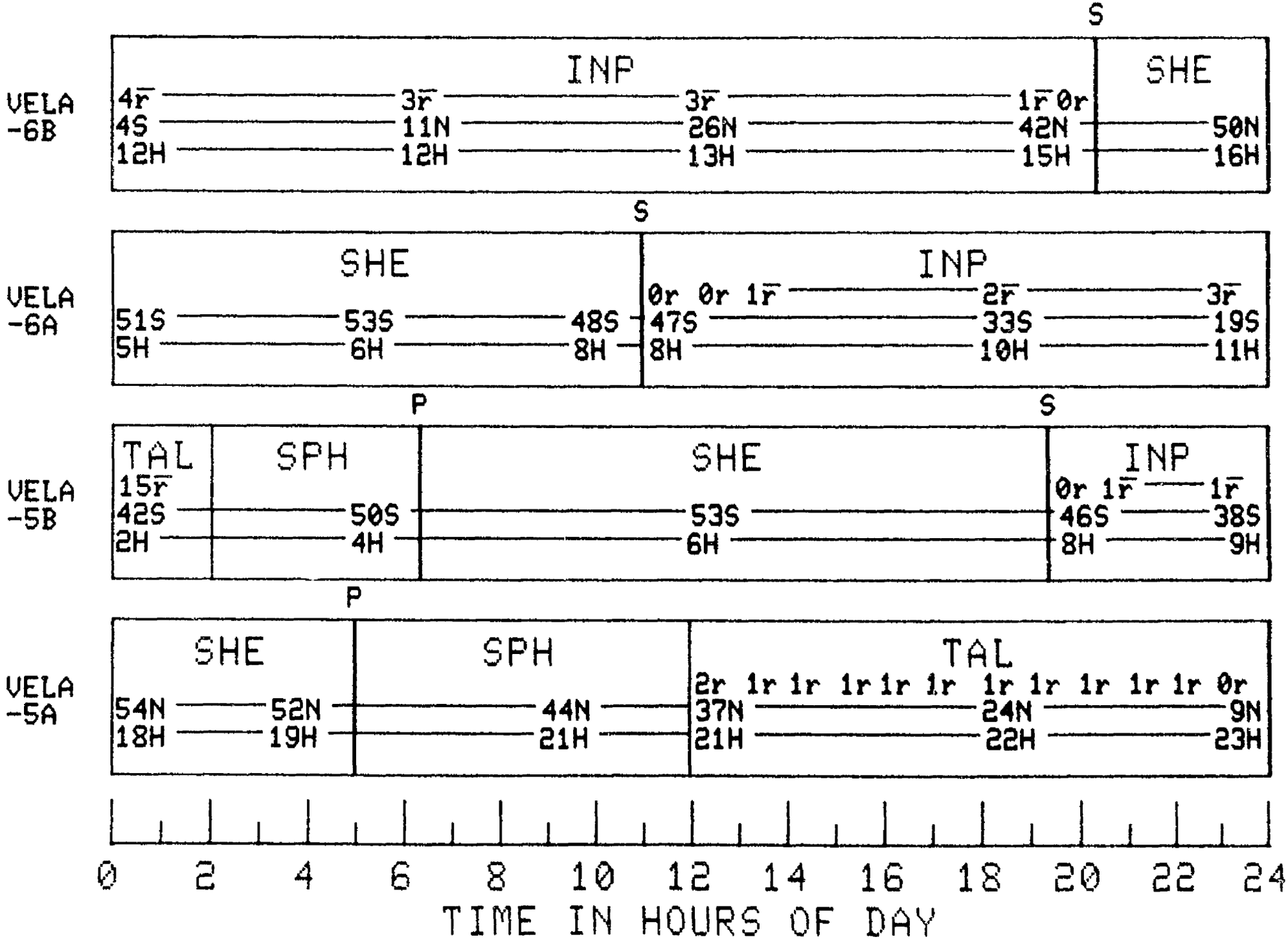
DAY 207 1977


S
INP
PROG
NOZ-5
0r 1r̄
2r̄
3r̄
3r̄
4r̄
78N
83N
86N
88N
87N
15H
15H
16H
19H
23H
P
SHE
SPH
HAWK
EYE-1
56N
64N
52N
58N
77N
23H
22H
21H
23H
3H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

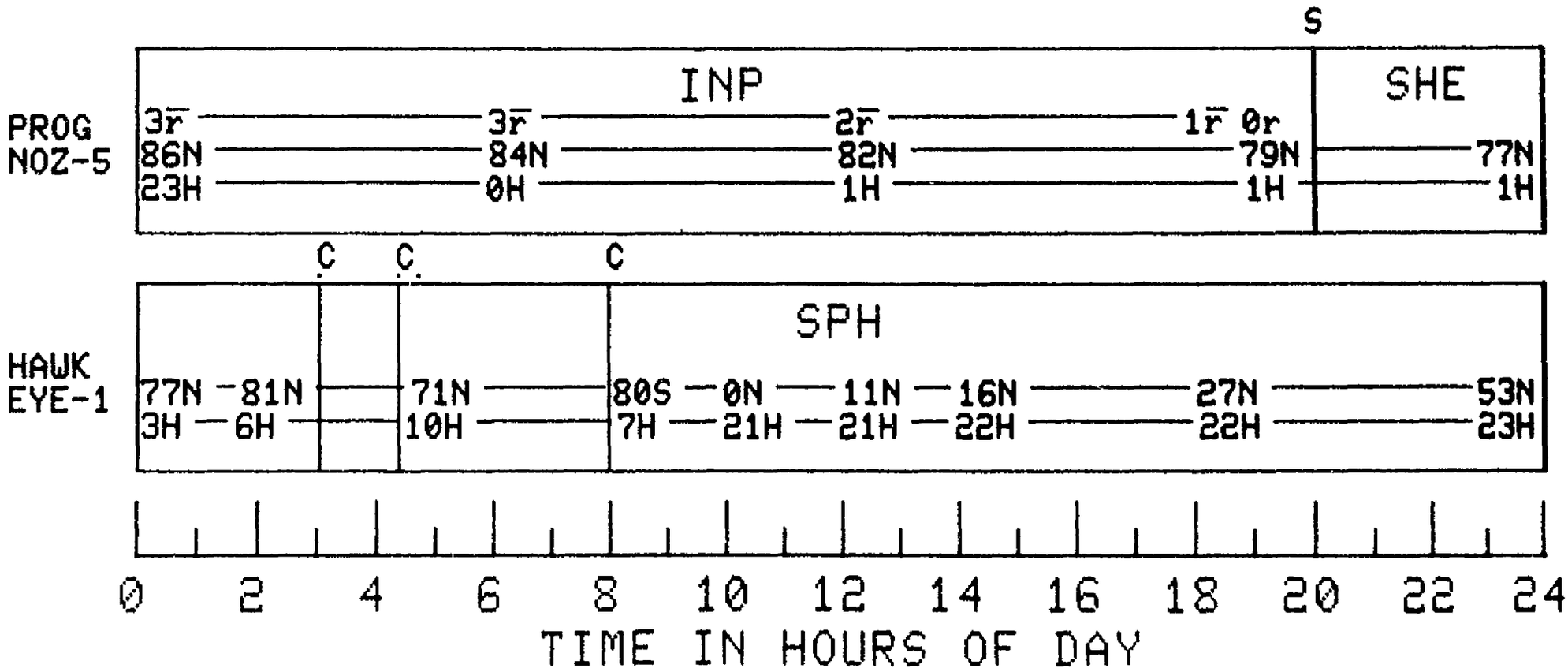
DAY 208 1977


IMP-J
INP
22r̄ 21r̄ 19r̄ 18r̄ 16r̄
31N 33N 35N 36N 37N
15H 16H 16H 16H 17H
IMP-H
INP
17r̄ 18r̄ 19r̄ 20r̄ 20r̄
7S 4S 2S 1N 4N
7H 8H 8H 9H 9H
P
SOL
RAD
-11B
TAL
SPH
SHE
4r̄ 3r̄ 2r̄ 1r̄ 1r̄ 0r 0r 0r 1r 1r 0r 0r 1r̄ 1r̄ 2r̄
6S 6S 5S 5S 4S 3S
1H 2H 3H 4H 4H 5H
S
SOL
RAD
-11A
INP
SHE
4r̄ 4r̄ 2r̄ 1r̄ 0r
6N 5N 5N 4N 2N
13H 14H 15H 16H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

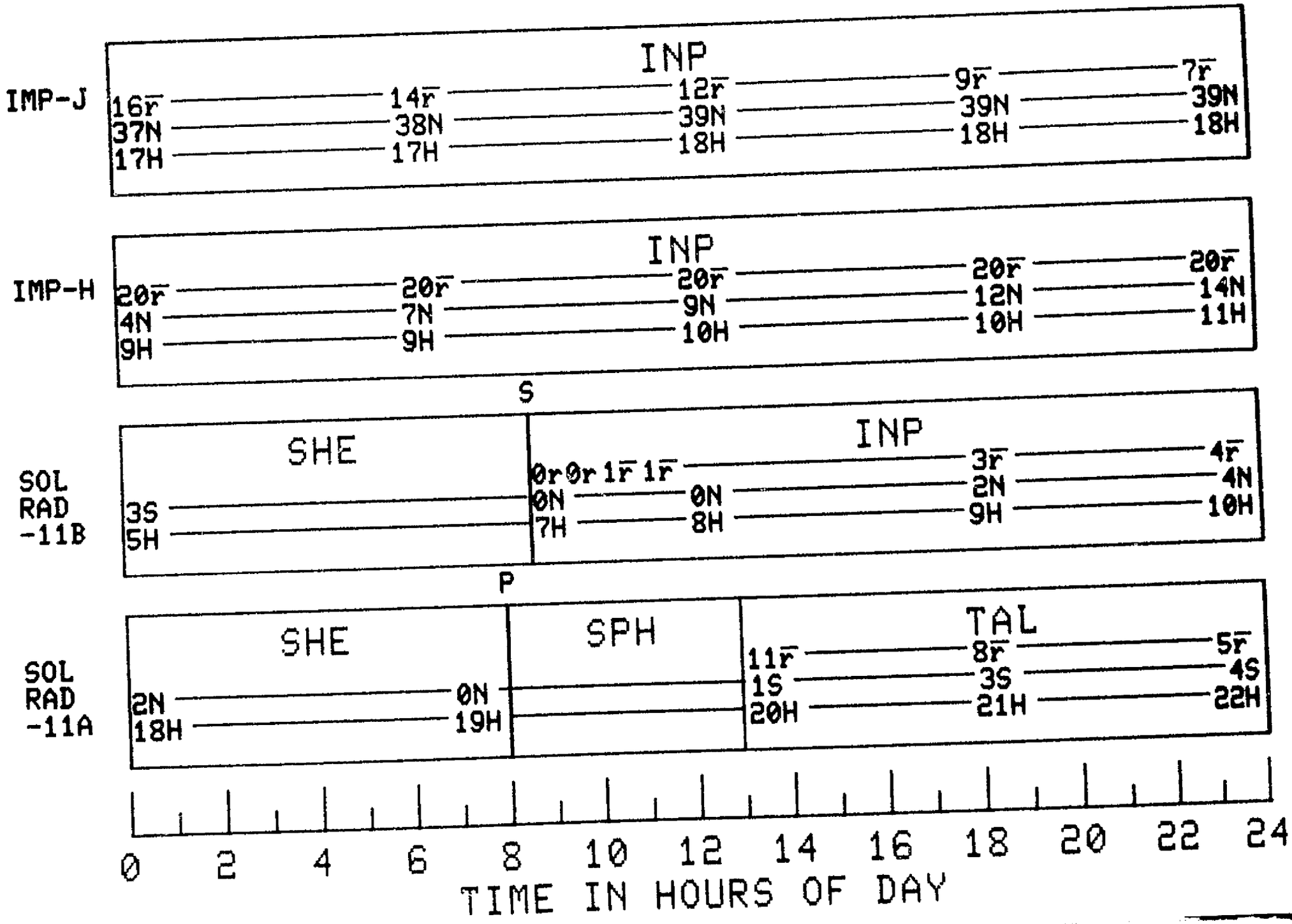
DAY 208 1977


VELA -6B
INP
SHE
S
4r̄ 3r̄ 3r̄ 1r̄ 0r
4S 11N 26N 42N 50N
12H 12H 13H 15H 16H
VELA -6A
SHE
INP
S
51S 53S 48S
5H 6H 8H
0r 0r 1r̄ 2r̄ 3r̄
47S 33S 19S
8H 10H 11H
VELA -5B
TAL
SPH
SHE
INP
P
S
15r̄
42S 50S 53S
2H 4H 6H
0r 1r̄ 1r̄
46S 38S
8H 9H
VELA -5A
SHE
SPH
TAL
P
54N 52N 44N
18H 19H 21H
2r 1r 1r 1r 1r 1r 1r 1r 1r 1r 1r 0r
37N 24N 9N
21H 22H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

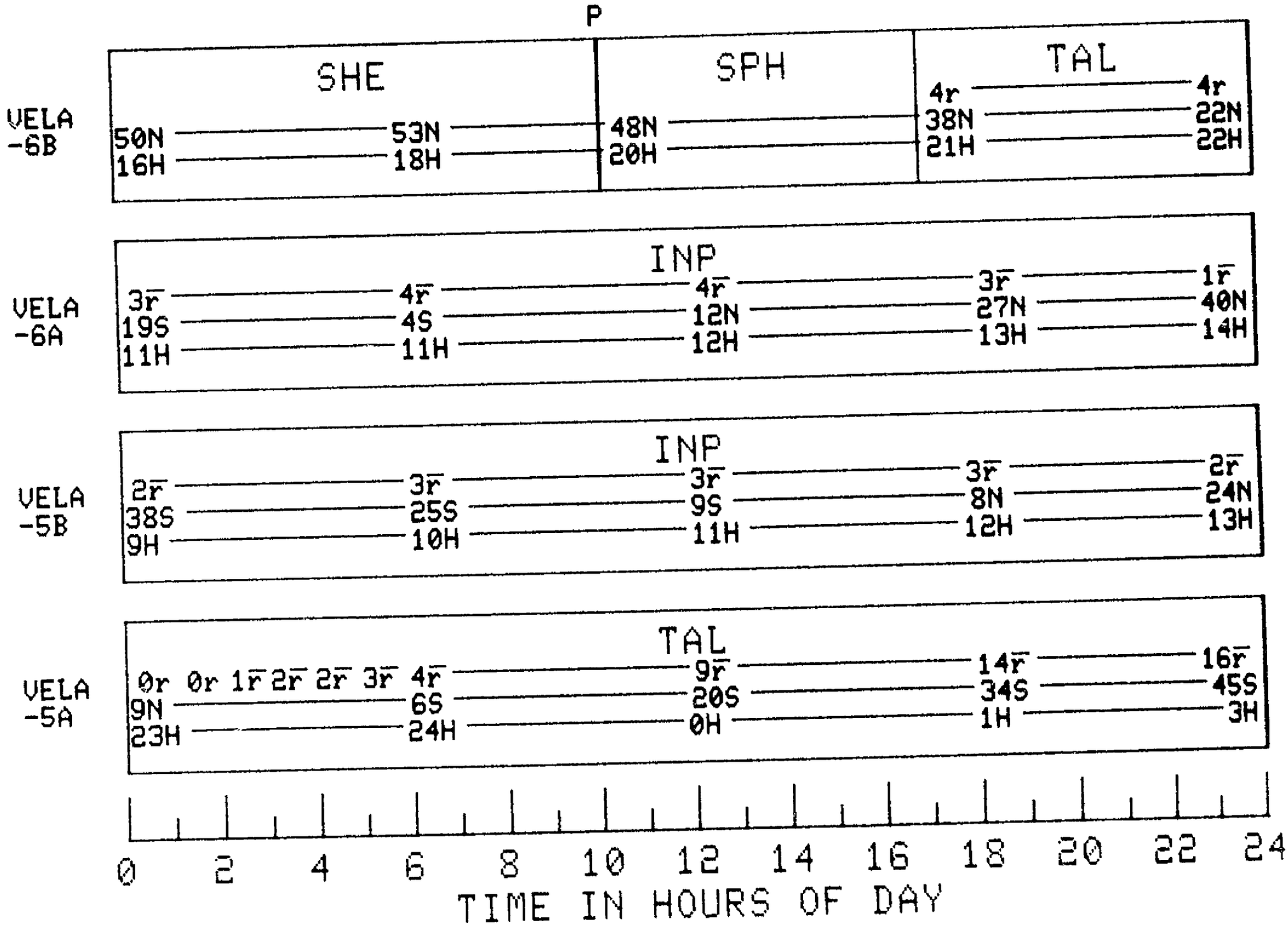
DAY 208 1977


S
INP
SHE
PROG
NOZ-5
3r 3r 2r 1r 0r
86N 84N 82N 79N 77N
23H 0H 1H 1H 1H
C C C
SPH
HAWK
EYE-1
77N 81N 71N 80S 0N 11N 16N 27N 53N
3H 6H 10H 7H 21H 21H 22H 22H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

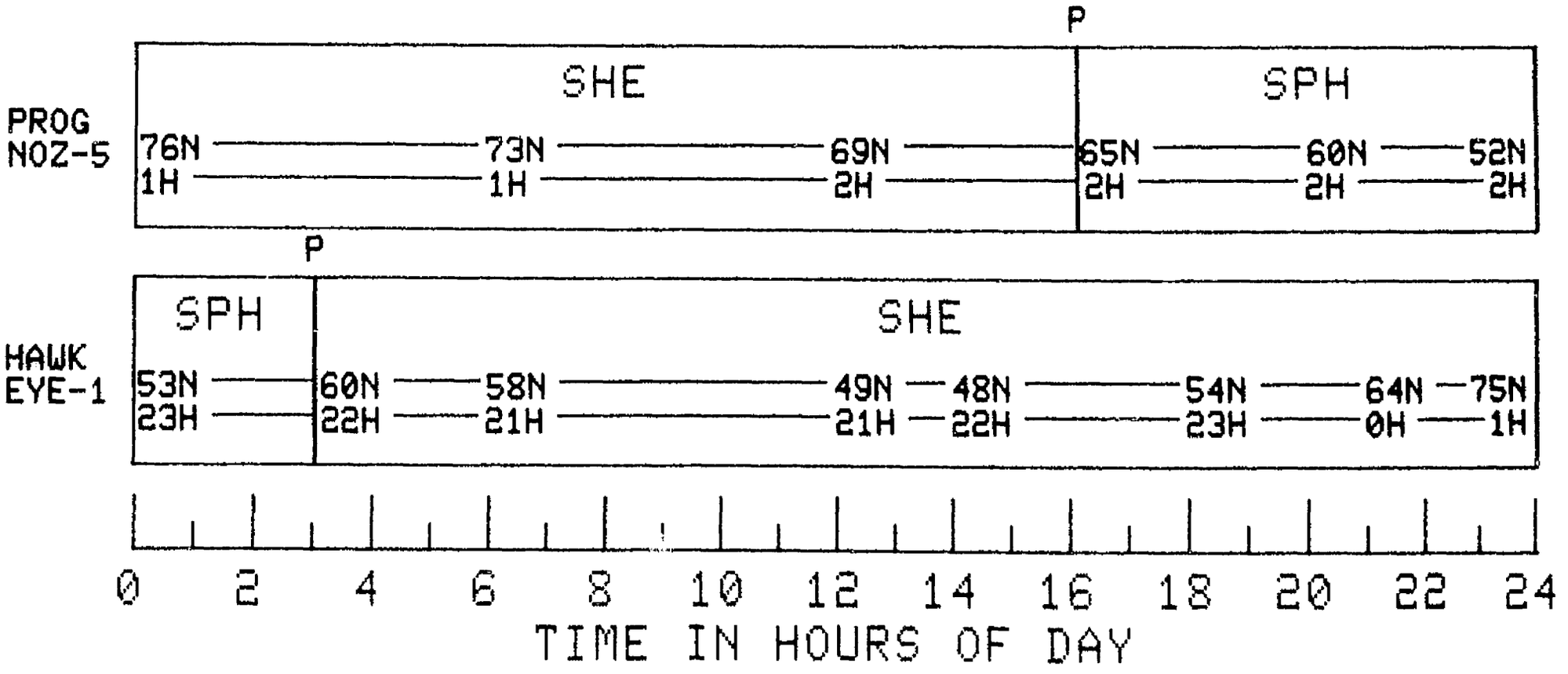
DAY 209 1977

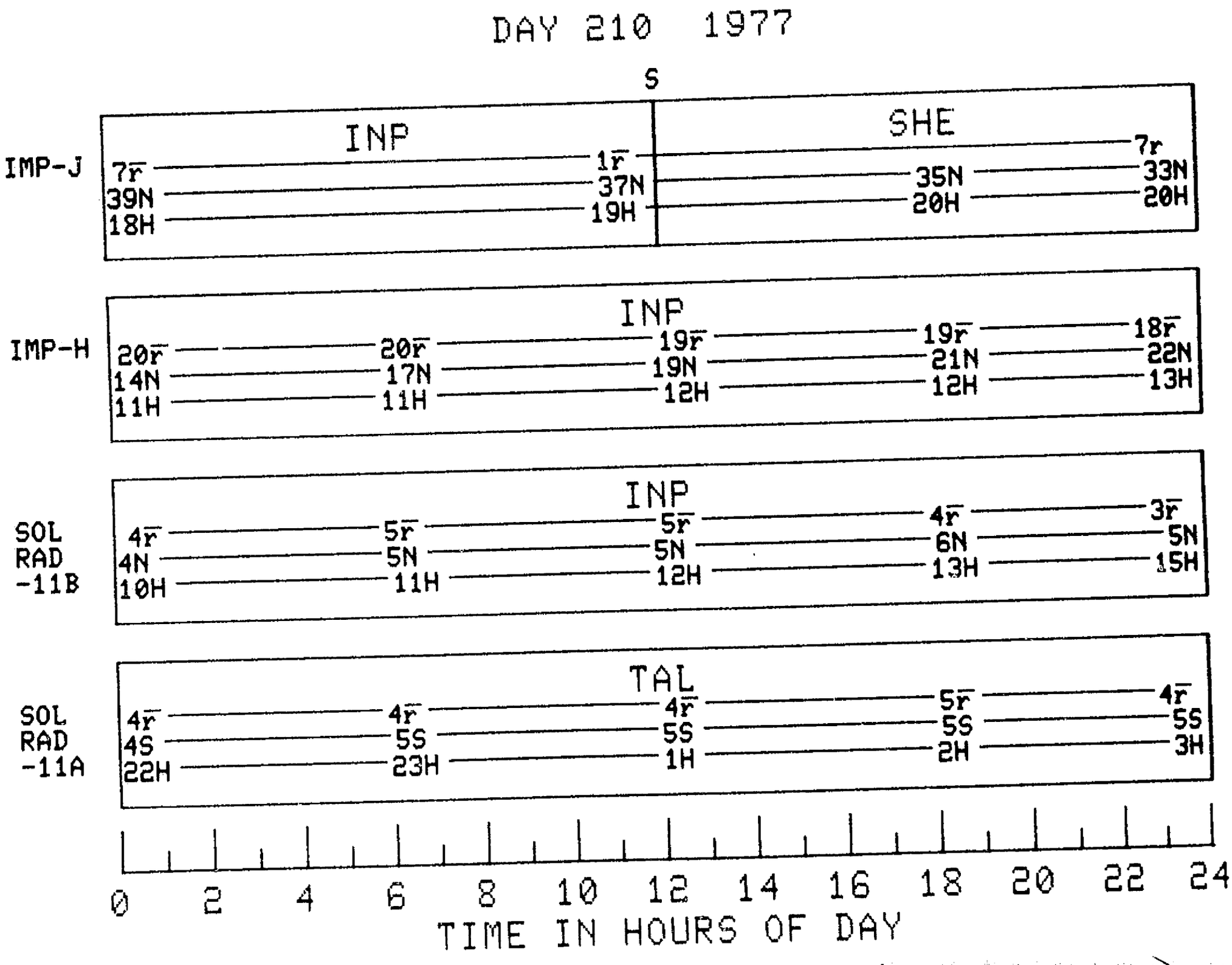

IMP-J
INP
16r 14r 12r 9r 7r
37N 38N 39N 39N 39N
17H 17H 18H 18H 18H
IMP-H
INP
20r 20r 20r 20r 20r
4N 7N 9N 12N 14N
9H 9H 10H 10H 11H
S
SOL RAD -11B
SHE
INP
3S 0r 0r 1r 1r 3r 4r
5H 0N 0N 2N 4N
7H 8H 9H 10H
P
SOL RAD -11A
SHE
SPH
TAL
2N 0N 11r 8r 5r
18H 19H 1S 3S 4S
20H 21H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 209 1977

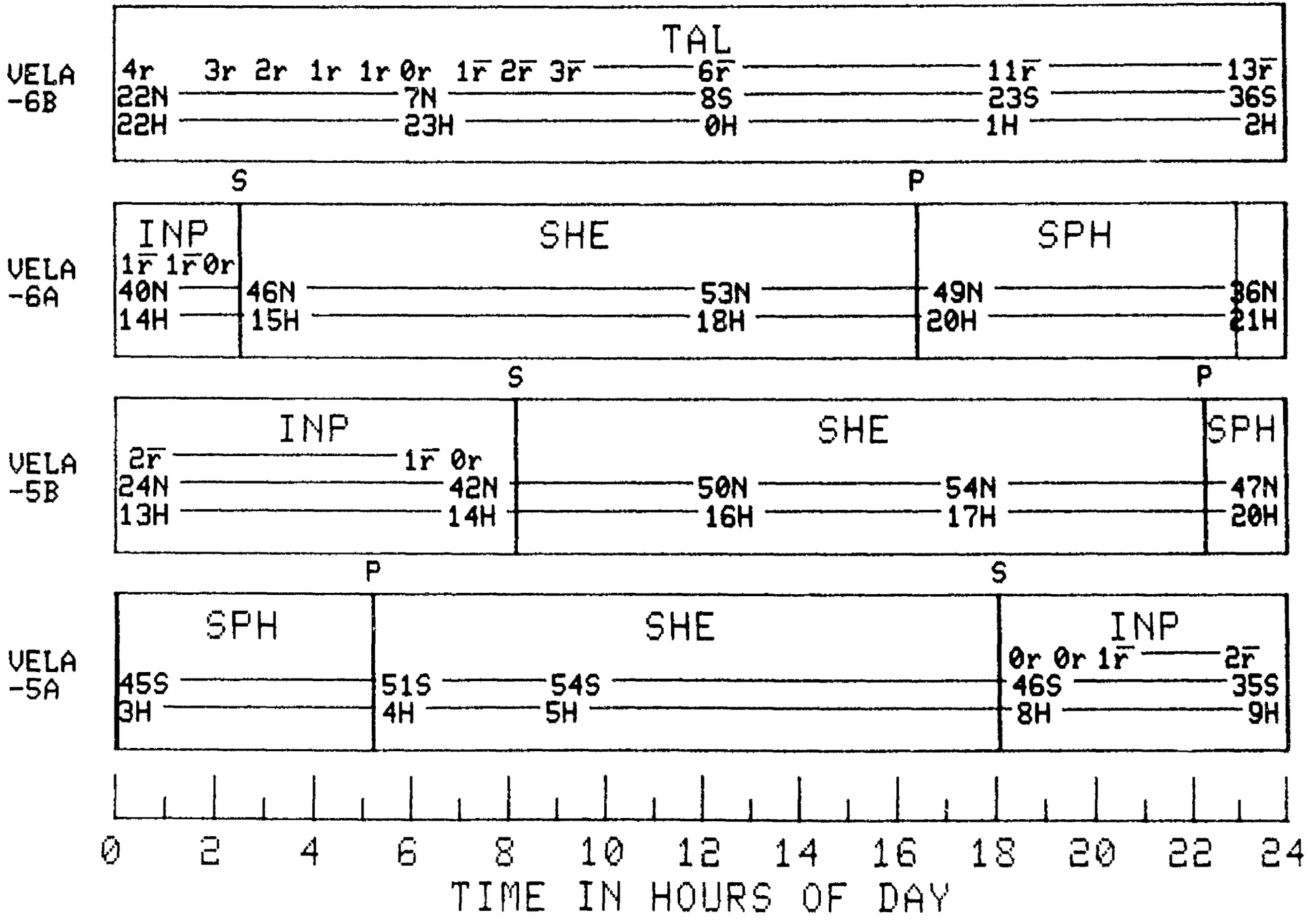

P
VELA -6B
SHE
50N 16H
53N 18H
SPH
48N 20H
TAL
4r 38N 21H
4r 22N 22H
VELA -6A
INP
3r̄ 19S 11H
4r̄ 4S 11H
4r̄ 12N 12H
3r̄ 27N 13H
1r̄ 40N 14H
VELA -5B
INP
2r̄ 38S 9H
3r̄ 25S 10H
3r̄ 9S 11H
3r̄ 8N 12H
2r̄ 24N 13H
VELA -5A
TAL
0r 0r 1r̄ 2r̄ 2r̄ 3r̄ 4r̄ 9N 23H
9r̄ 6S 24H
9r̄ 20S 0H
14r̄ 34S 1H
16r̄ 45S 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 209 1977

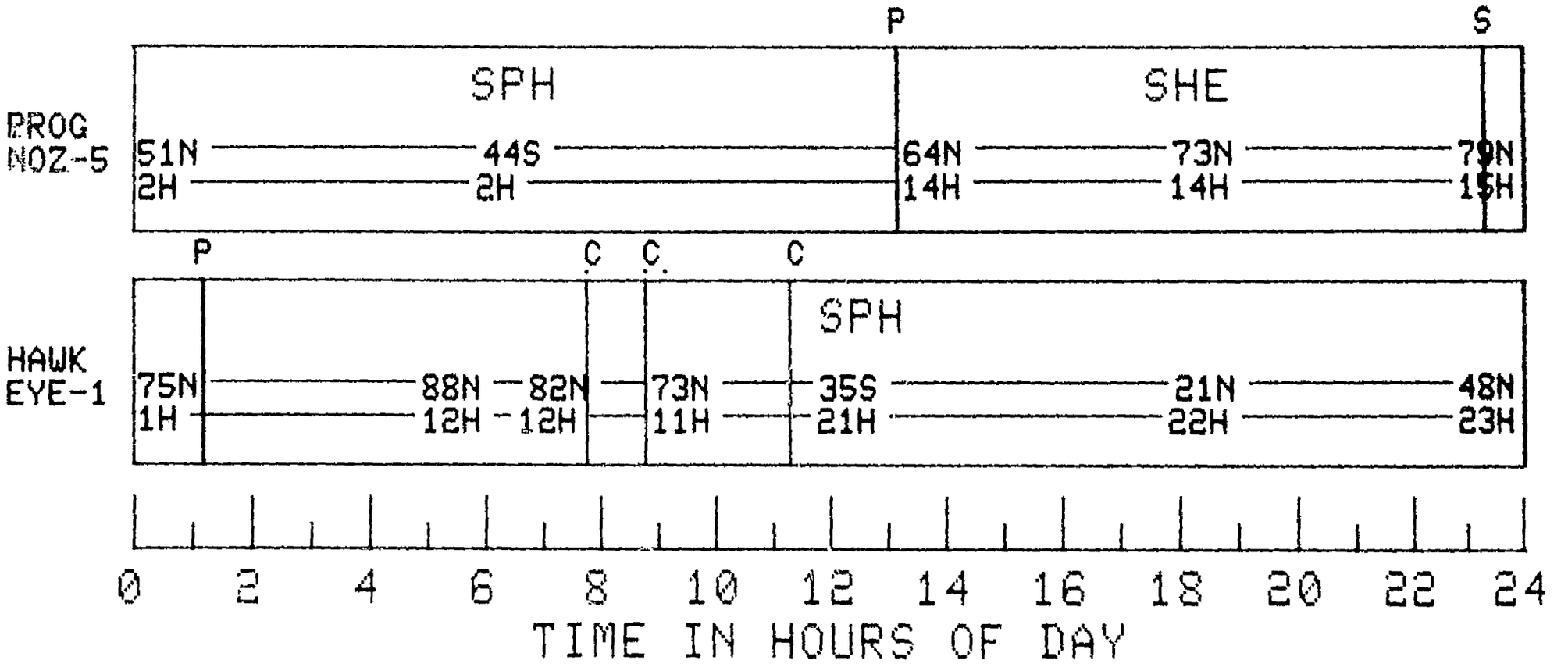

P
SHE
SPH
PROG
NOZ-5
76N
73N
69N
65N
60N
52N
1H
1H
2H
2H
2H
2H
P
SPH
SHE
HAWK
EYE-1
53N
60N
58N
49N
48N
54N
64N
75N
23H
22H
21H
21H
22H
23H
0H
1H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 210 1977
S
IMP-J
INP
7r
39N
18H
1r
37N
19H
SHE
7r
35N
20H
33N
20H
IMP-H
INP
20r
14N
11H
20r
17N
11H
19r
19N
12H
19r
21N
12H
18r
22N
13H
SOL RAD -11B
INP
4r
4N
10H
5r
5N
11H
5r
5N
12H
4r
6N
13H
3r
5N
15H
SOL RAD -11A
TAL
4r
4S
22H
4r
5S
23H
4r
5S
1H
5r
5S
2H
4r
5S
3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

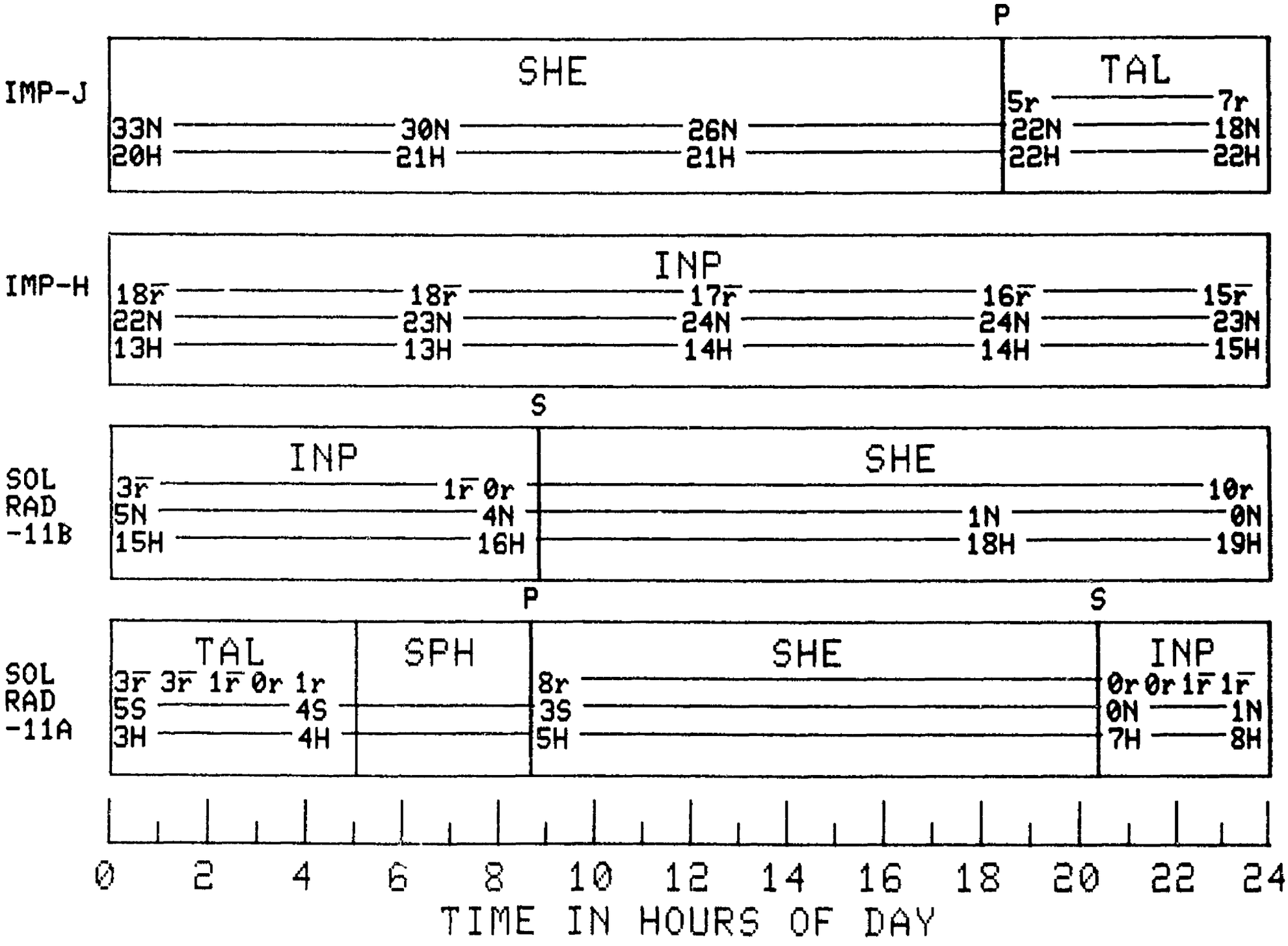
DAY 210 1977


VELA -6B
TAL
4r 3r 2r 1r 1r 0r 1r̄ 2r̄ 3r̄ 6r̄ 11r̄ 13r̄
22N 7N 8S 23S 36S
22H 23H 0H 1H 2H
S
P
VELA -6A
INP
SHE
SPH
1r̄ 1r̄ 0r
40N 46N 53N 49N 36N
14H 15H 18H 20H 21H
S
P
VELA -5B
INP
SHE
SPH
2r̄ 1r̄ 0r
24N 42N 50N 54N 47N
13H 14H 16H 17H 20H
P
S
VELA -5A
SPH
SHE
INP
0r 0r 1r̄ 2r̄
45S 51S 54S 46S 35S
3H 4H 5H 8H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

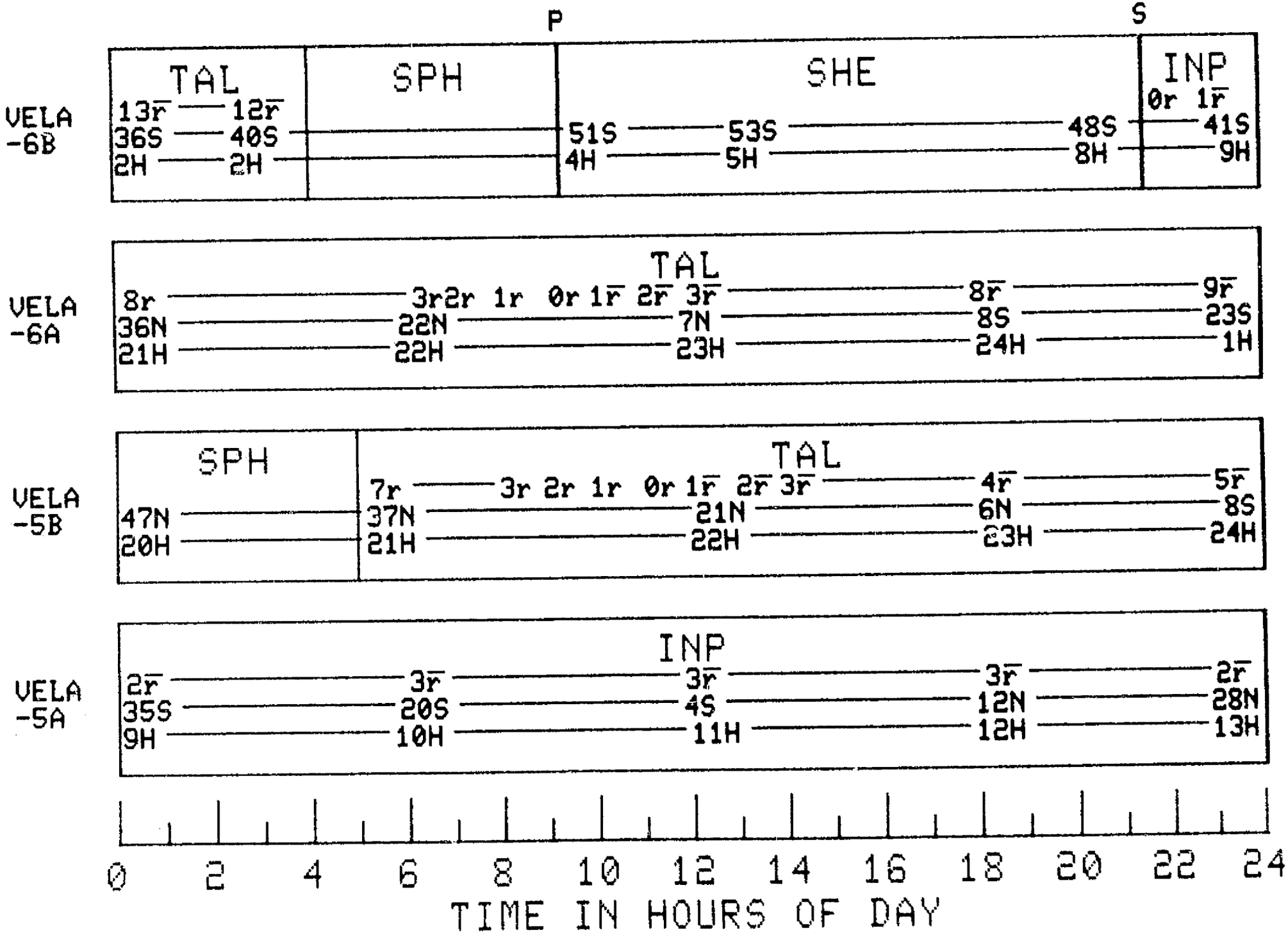
DAY 210 1977


P
S
SPH
SHE
PROG
NOZ-5
51N
44S
64N
73N
79N
2H
2H
14H
14H
15H
P
C
C
C
SPH
HAWK
EYE-1
75N
88N
82N
73N
35S
21N
48N
1H
12H
12H
11H
21H
22H
23H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

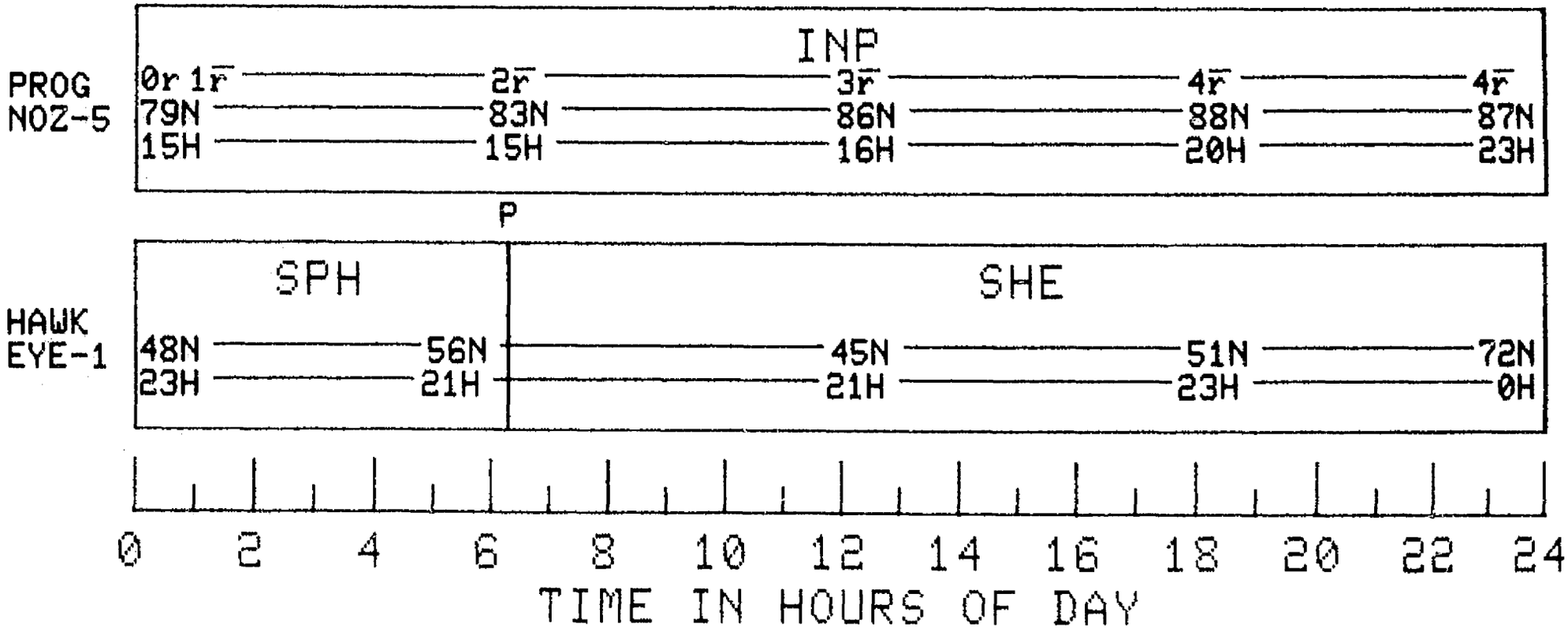
DAY 211 1977


P
IMP-J
SHE
TAL
33N 30N 26N
20H 21H 21H
5r 7r
22N 18N
22H 22H
IMP-H
INP
18r 18r 17r 16r 15r
22N 23N 24N 24N 23N
13H 13H 14H 14H 15H
S
SOL RAD -11B
INP
SHE
3r 1r 0r 10r
5N 4N 1N 0N
15H 16H 18H 19H
P
S
SOL RAD -11A
TAL
SPH
SHE
INP
3r 3r 1r 0r 1r
5S 4S
3H 4H
8r
3S
5H
0r 0r 1r 1r
0N 1N
7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

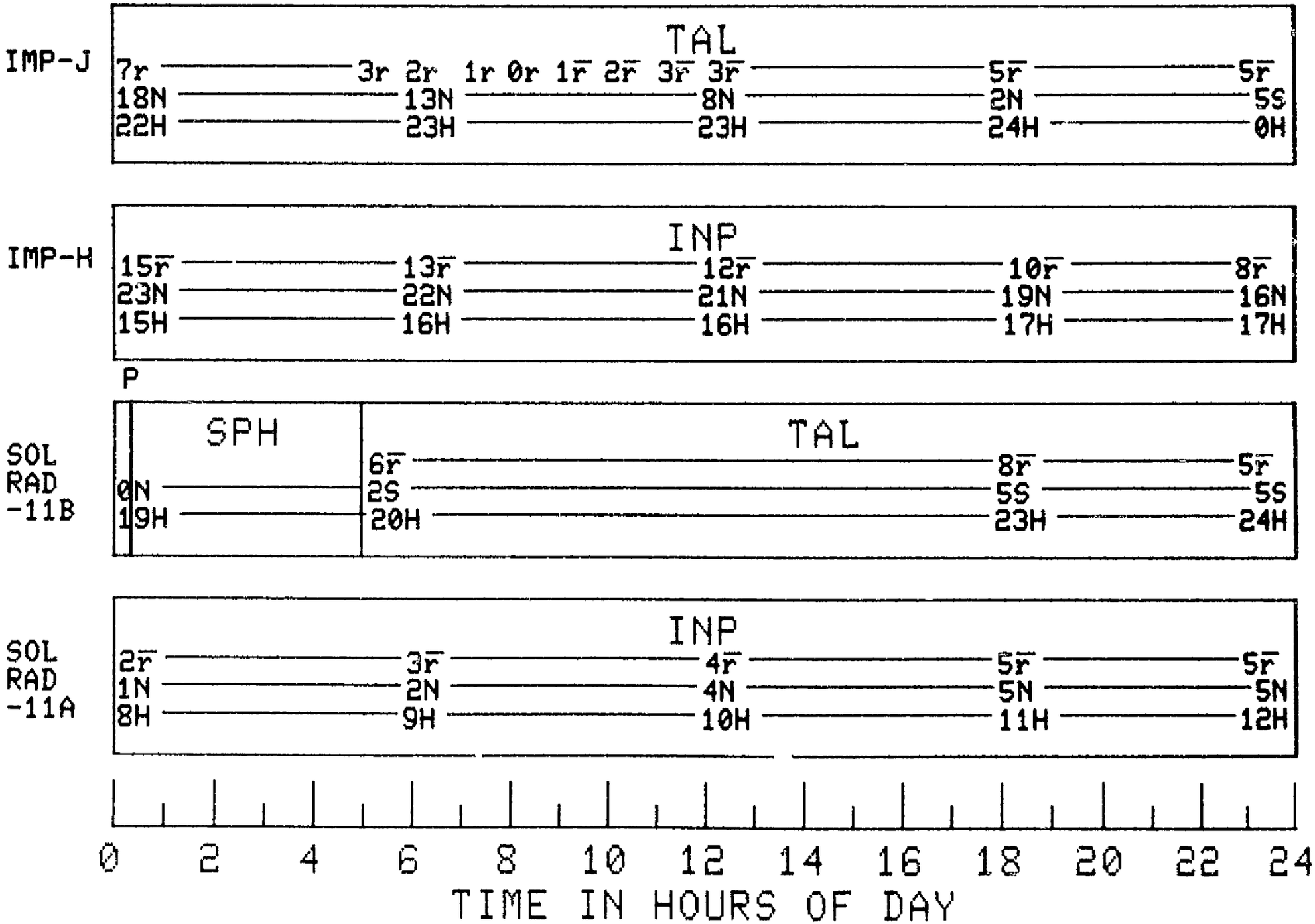
DAY 211 1977


P
S
VELA -6B
TAL
SPH
SHE
INP
13r̄ 12r̄
36S 40S
2H 2H
51S 53S 48S
4H 5H 8H
0r 1r̄
41S
9H
VELA -6A
TAL
8r 3r 2r 1r 0r 1r̄ 2r̄ 3r̄ 8r̄ 9r̄
36N 22N 7N 8S 23S
21H 22H 23H 24H 1H
VELA -5B
SPH
TAL
47N
20H
7r 3r 2r 1r 0r 1r̄ 2r̄ 3r̄ 4r̄ 5r̄
37N 21N 6N 8S
21H 22H 23H 24H
VELA -5A
INP
2r̄ 3r̄ 3r̄ 3r̄ 2r̄
35S 20S 4S 12N 28N
9H 10H 11H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

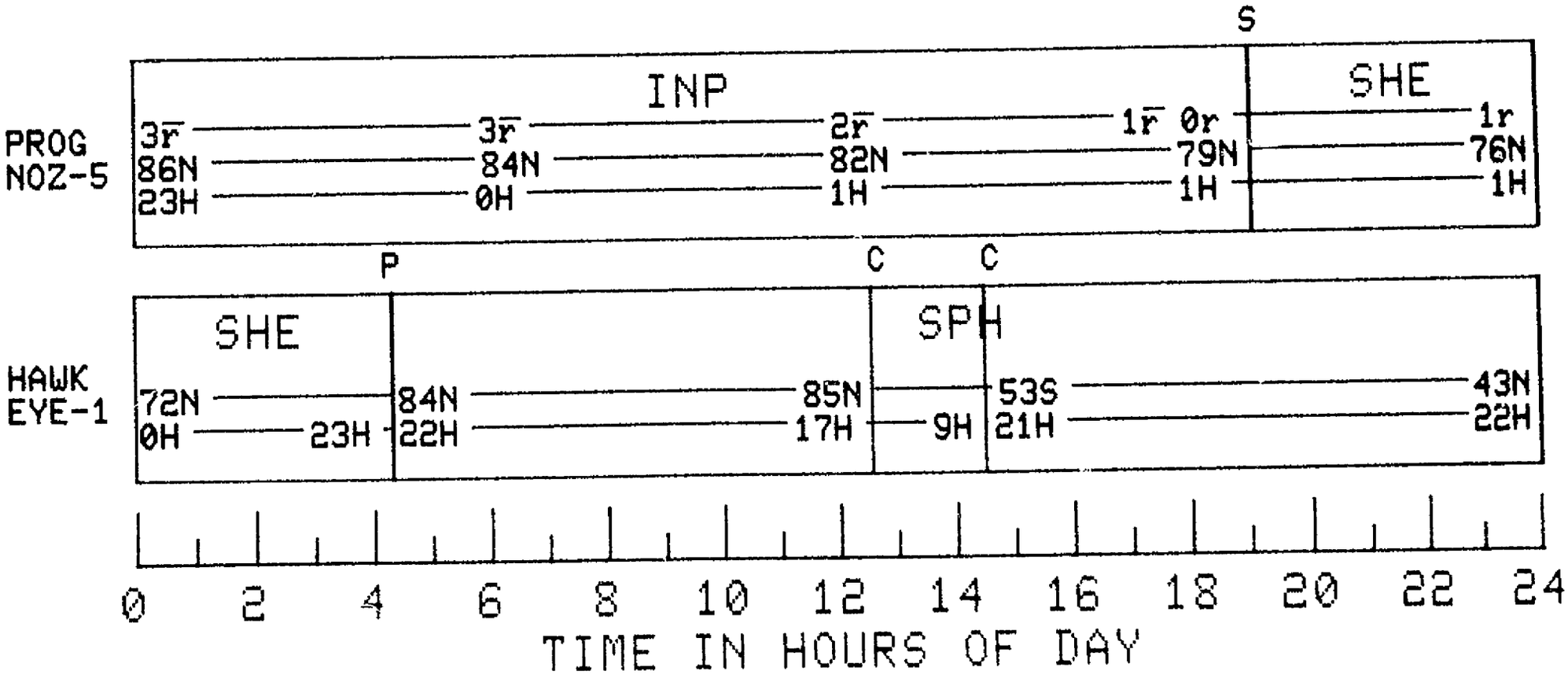
DAY 211 1977


INP
PROG
NOZ-5
0r 1r
2r
3r
4r
4r
79N
83N
86N
88N
87N
15H
15H
16H
20H
23H
P
SPH
SHE
HAWK
EYE-1
48N
56N
45N
51N
72N
23H
21H
21H
23H
0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

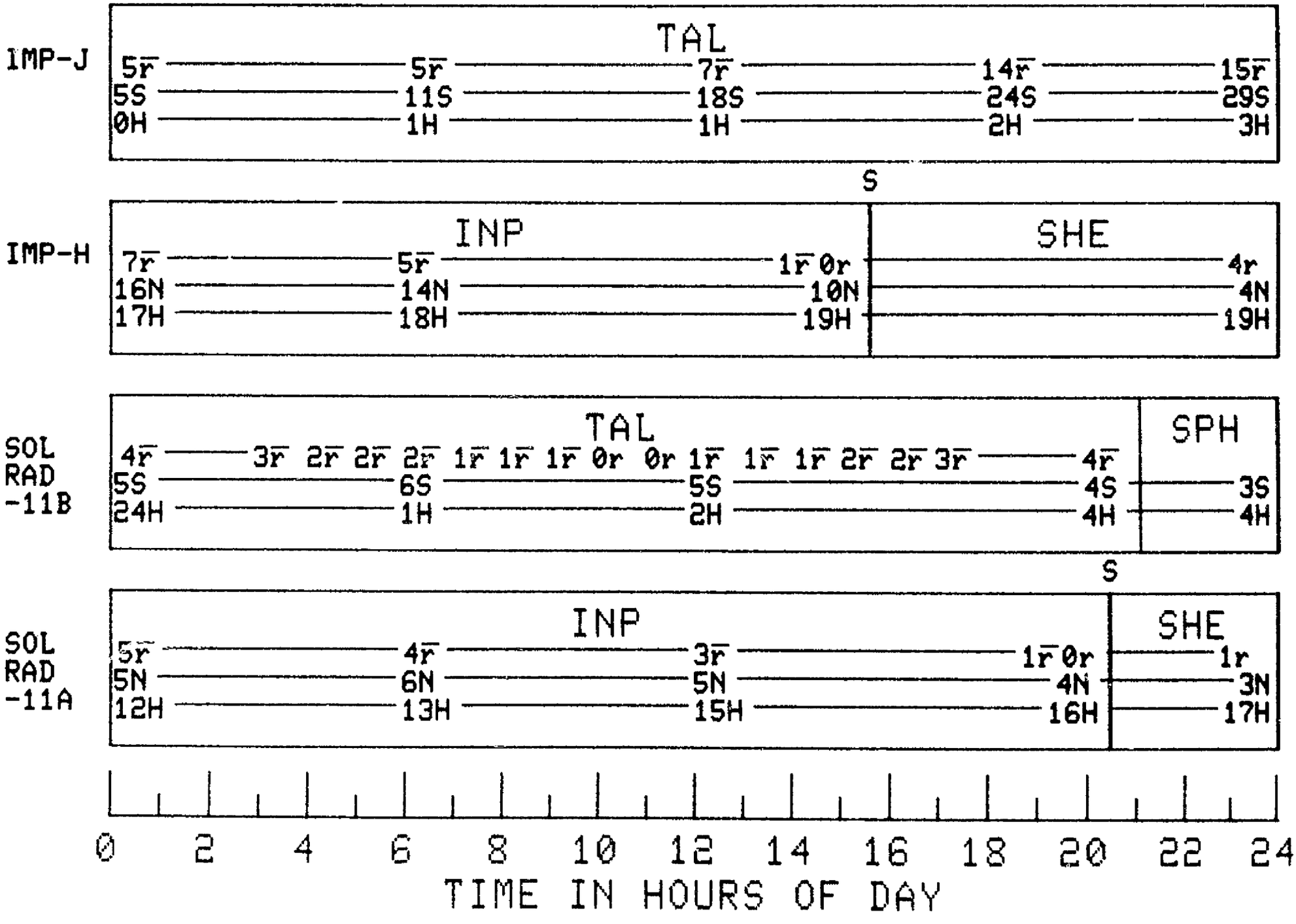
DAY 212 1977


IMP-J
TAL
7r 3r 2r 1r 0r 1r̄ 2r̄ 3r̄ 3r̄ 5r̄ 5r̄
18N 13N 8N 2N 5S
22H 23H 23H 24H 0H
IMP-H
INP
15r̄ 13r̄ 12r̄ 10r̄ 8r̄
23N 22N 21N 19N 16N
15H 16H 16H 17H 17H
P
SOL RAD -11B
SPH
TAL
0N 6r̄ 8r̄ 5r̄
19H 2S 5S 5S
20H 23H 24H
SOL RAD -11A
INP
2r̄ 3r̄ 4r̄ 5r̄ 5r̄
1N 2N 4N 5N 5N
8H 9H 10H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

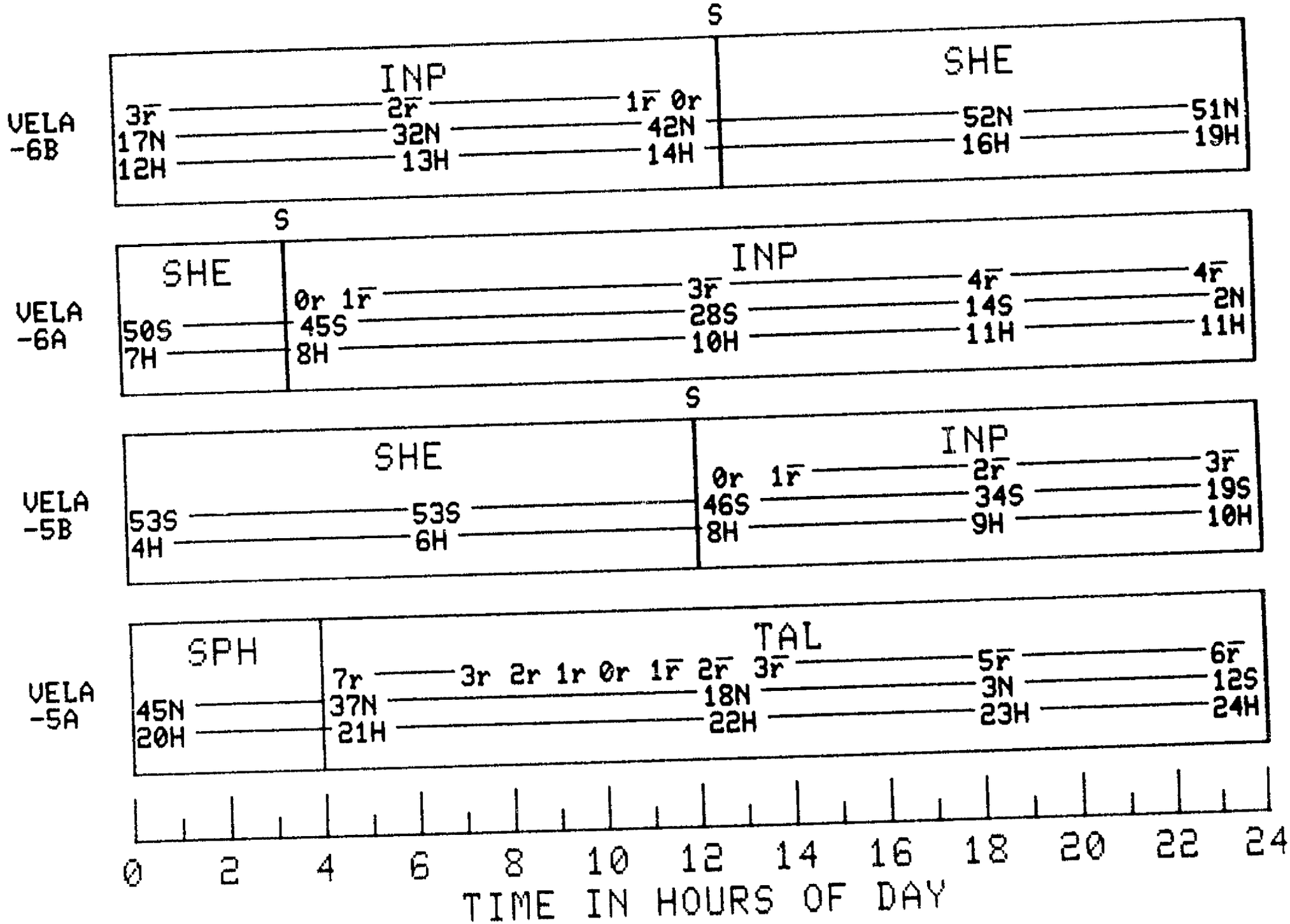
DAY 212 1977


S
INP
SHE
PROG
NOZ-5
3r̄
86N
23H
3r̄
84N
0H
2r̄
82N
1H
1r̄ 0r
79N
1H
1r
76N
1H
P
C
C
SHE
SPH
HAWK
EYE-1
72N
0H
23H
84N
22H
85N
17H
9H
53S
21H
43N
22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

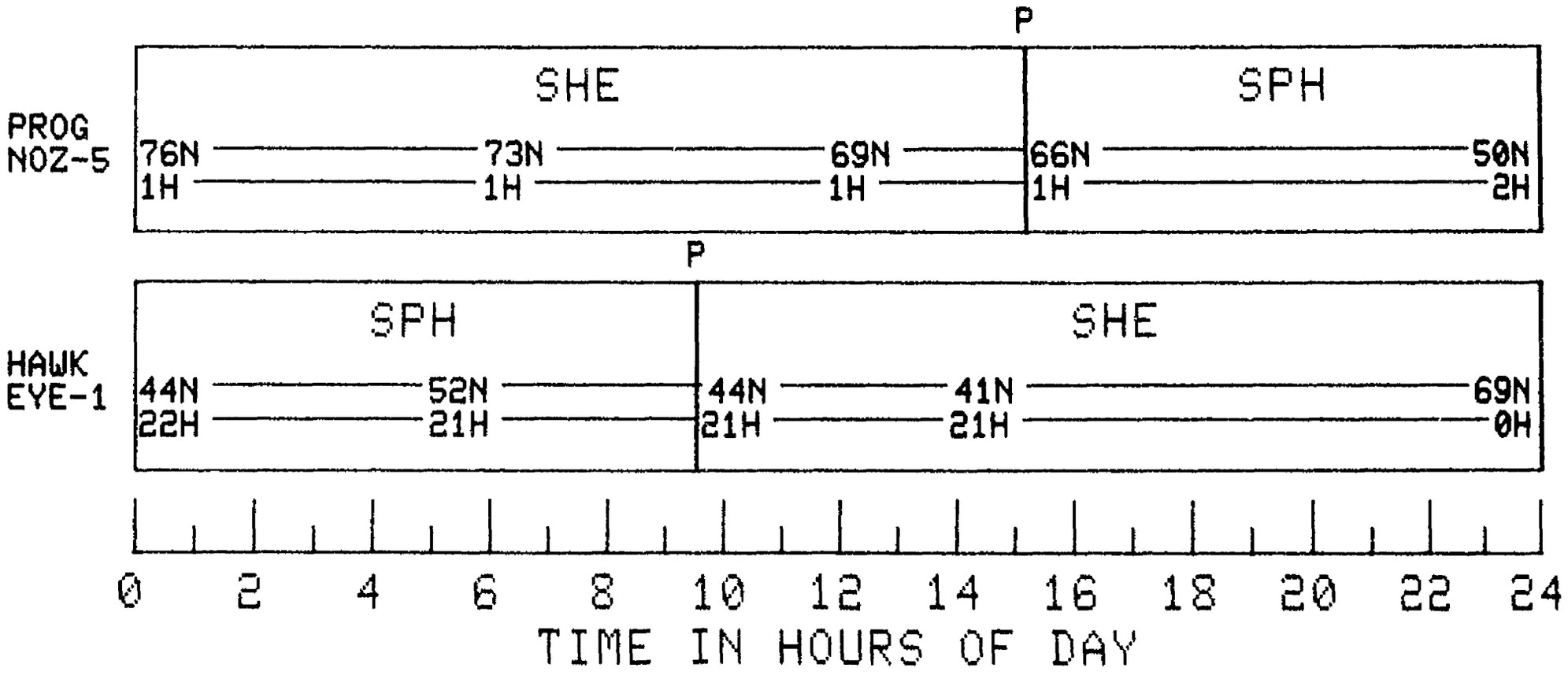
DAY 213 1977

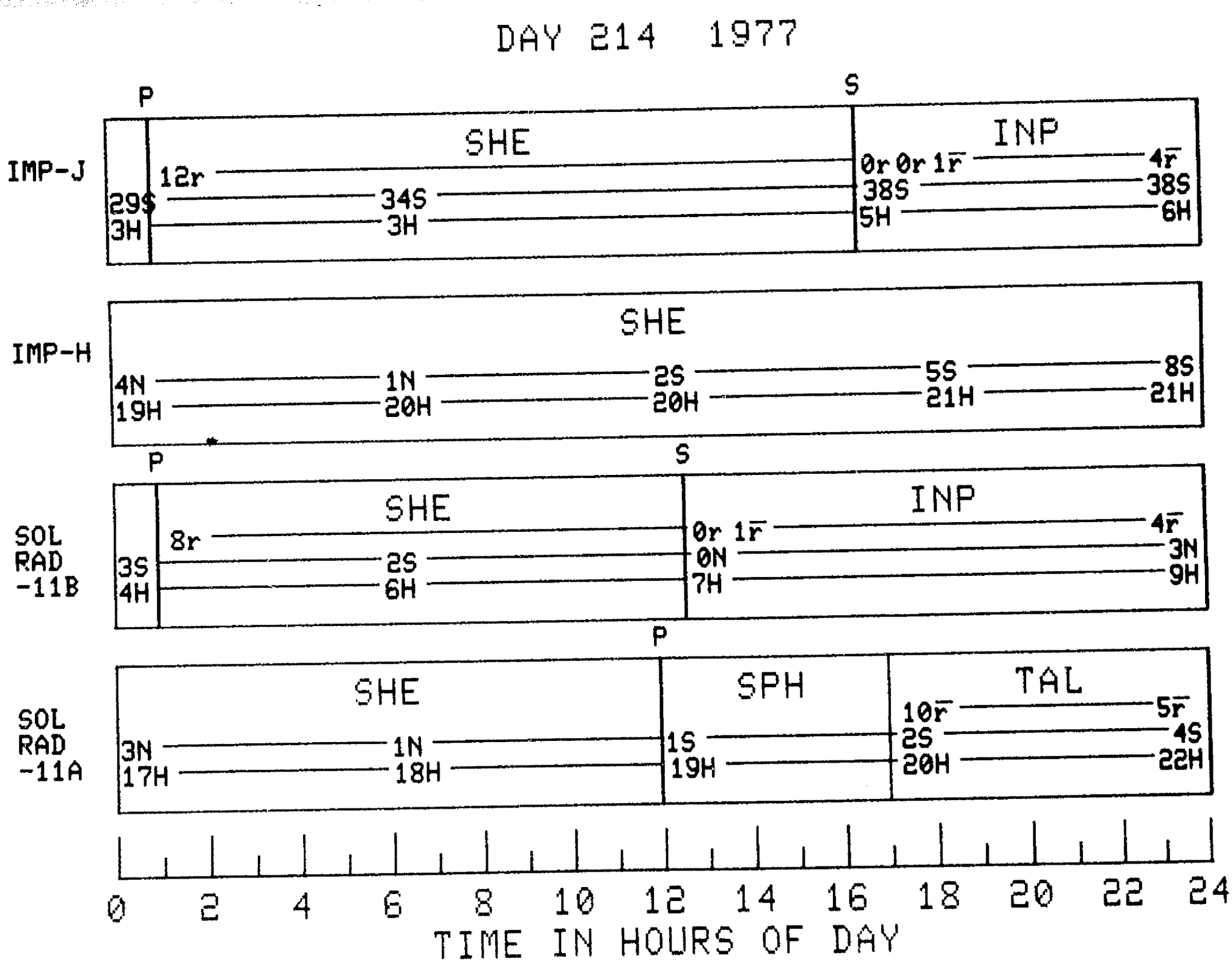

IMP-J
TAL
5r 5r 7r 14r 15r
5S 11S 18S 24S 29S
0H 1H 1H 2H 3H
S
IMP-H
INP
SHE
7r 5r 1r 0r 4r
16N 14N 10N 4N
17H 18H 19H 19H
SOL RAD -11B
TAL
SPH
4r 3r 2r 2r 2r 1r 1r 1r 0r 0r 1r 1r 1r 2r 2r 3r 4r
5S 6S 5S 4S 3S
24H 1H 2H 4H 4H
S
SOL RAD -11A
INP
SHE
5r 4r 3r 1r 0r 1r
5N 6N 5N 4N 3N
12H 13H 15H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 213 1977

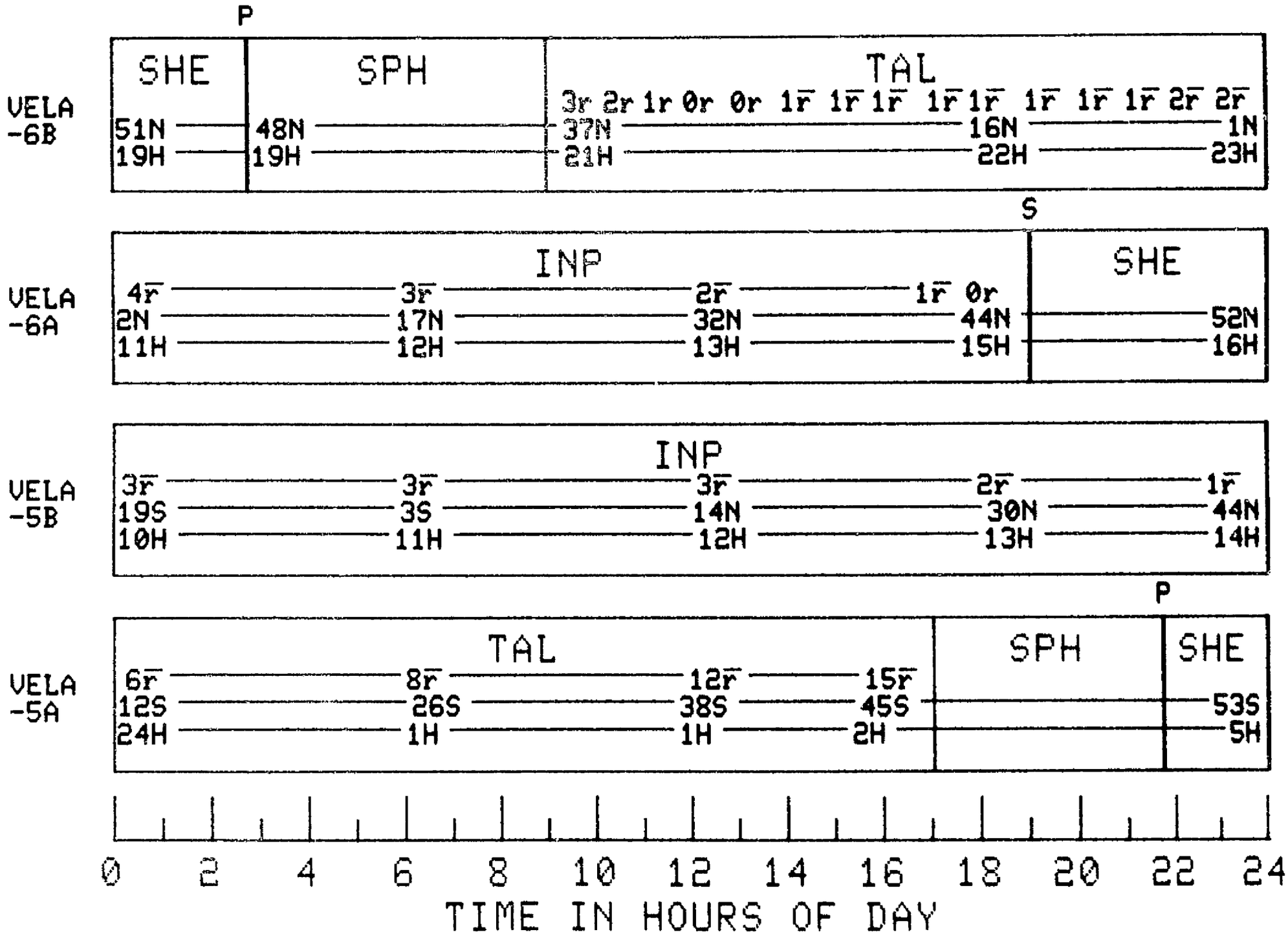

S
INP
SHE
VELA -6B
3r̄ 2r̄ 1r̄ 0r
17N 32N 42N
12H 13H 14H
52N 51N
16H 19H
S
SHE
INP
VELA -6A
50S 0r 1r̄ 3r̄ 4r̄ 4r̄
7H 45S 28S 14S 2N
8H 10H 11H 11H
S
SHE
INP
VELA -5B
53S 53S 0r 1r̄ 2r̄ 3r̄
4H 6H 46S 34S 19S
8H 9H 10H
SPH
TAL
VELA -5A
7r 3r 2r 1r 0r 1r̄ 2r̄ 3r̄ 5r̄ 6r̄
45N 37N 18N 3N 12S
20H 21H 22H 23H 24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 213 1977

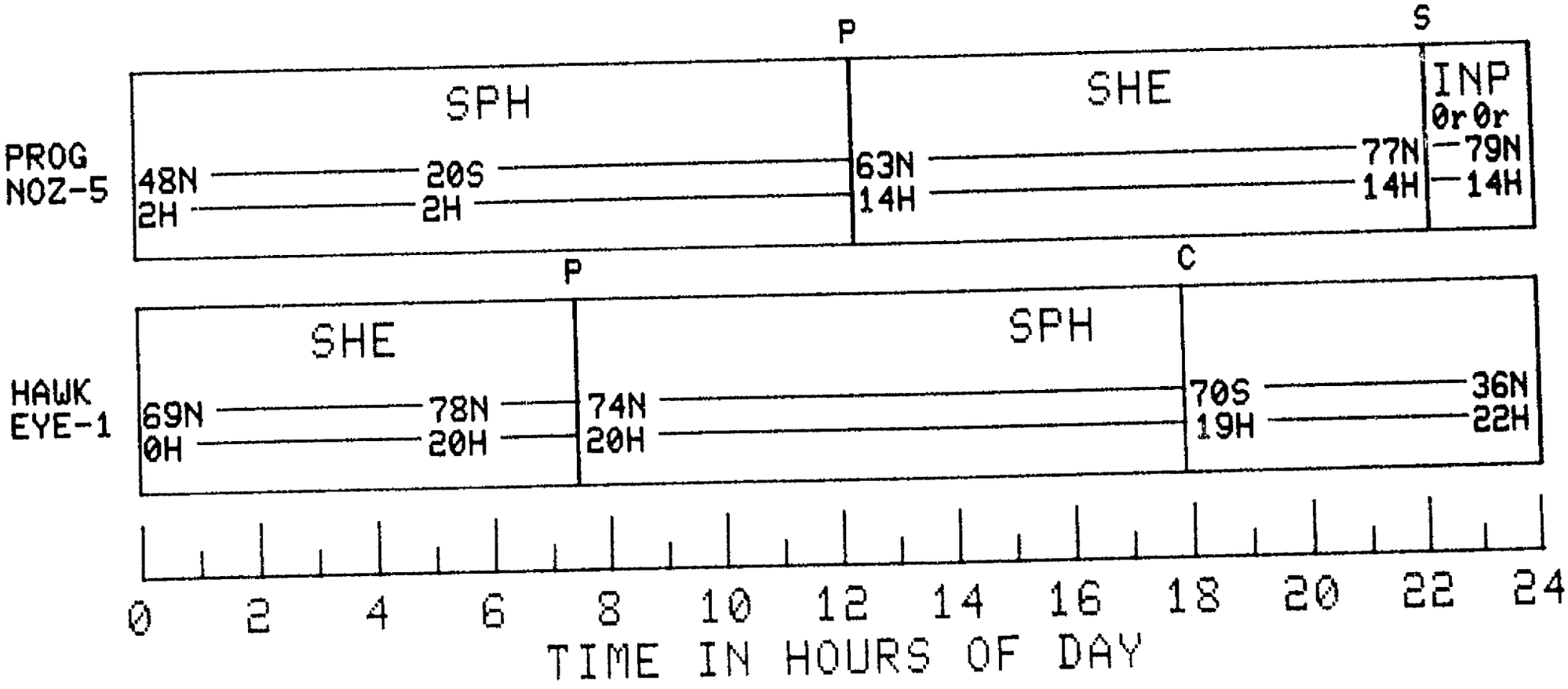

P
SHE
SPH
PROG
NOZ-5
76N
1H
73N
1H
69N
1H
66N
1H
50N
2H
P
SPH
SHE
HAWK
EYE-1
44N
22H
52N
21H
44N
21H
41N
21H
69N
0H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 214 1977
IMP-J
P
S
SHE
INP
12r
29S
3H
34S
3H
0r 0r 1r̄
38S
5H
4r̄
38S
6H
IMP-H
SHE
4N
19H
1N
20H
2S
20H
5S
21H
8S
21H
SOL RAD -11B
P
S
SHE
INP
8r
3S
4H
2S
6H
0r 1r̄
0N
7H
4r̄
3N
9H
SOL RAD -11A
P
SHE
SPH
TAL
3N
17H
1N
18H
1S
19H
10r̄
2S
20H
5r̄
4S
22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

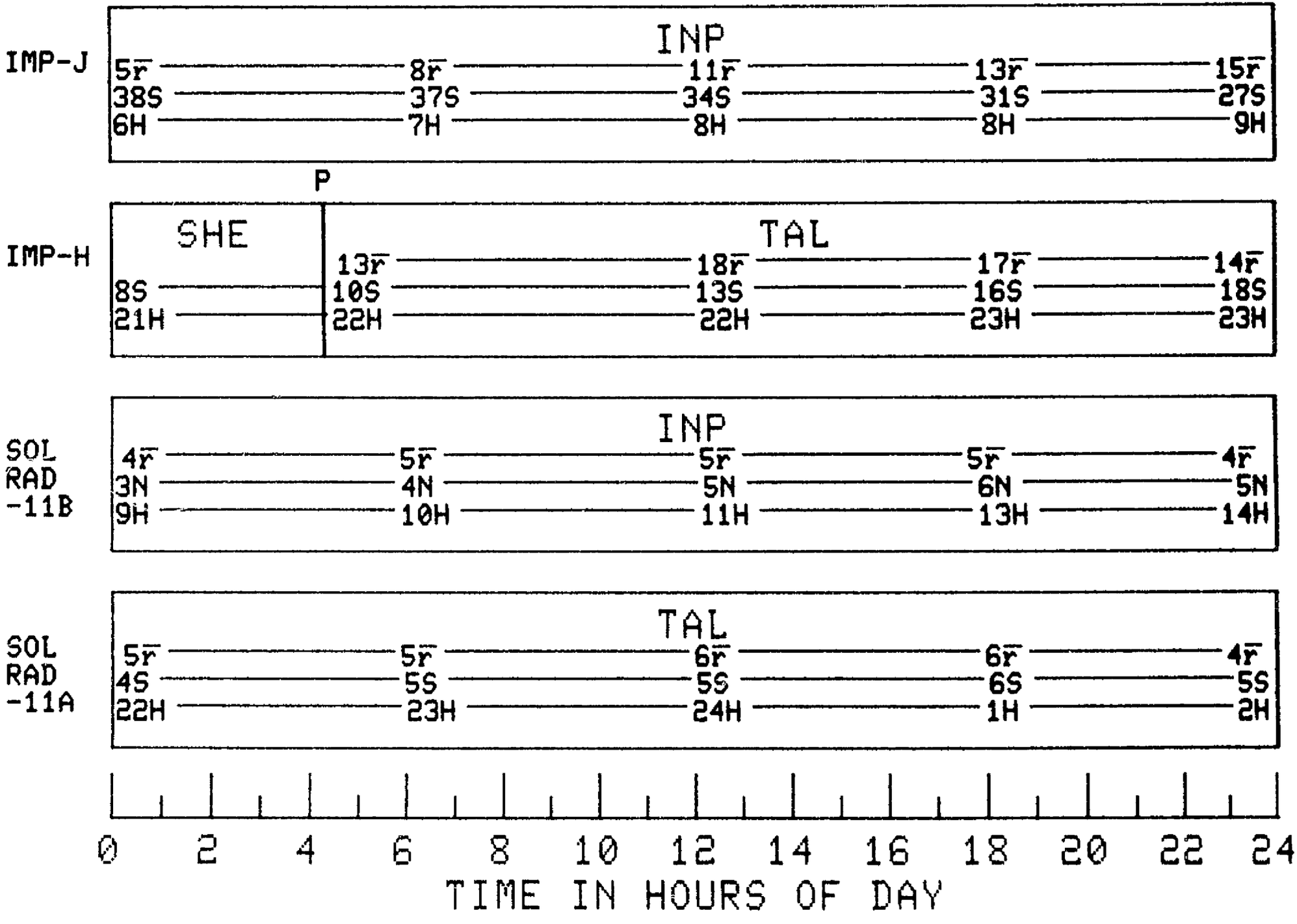
DAY 214 1977


P
SHE
SPH
TAL
3r 2r 1r 0r 0r 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 2r̄ 2r̄
VELA -6B
51N 48N 37N 16N 1N
19H 19H 21H 22H 23H
S
INP
SHE
VELA -6A
4r̄ 3r̄ 2r̄ 1r̄ 0r
2N 17N 32N 44N 52N
11H 12H 13H 15H 16H
INP
VELA -5B
3r̄ 3r̄ 3r̄ 2r̄ 1r̄
19S 3S 14N 30N 44N
10H 11H 12H 13H 14H
P
TAL
SPH
SHE
VELA -5A
6r̄ 8r̄ 12r̄ 15r̄
12S 26S 38S 45S 53S
24H 1H 1H 2H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

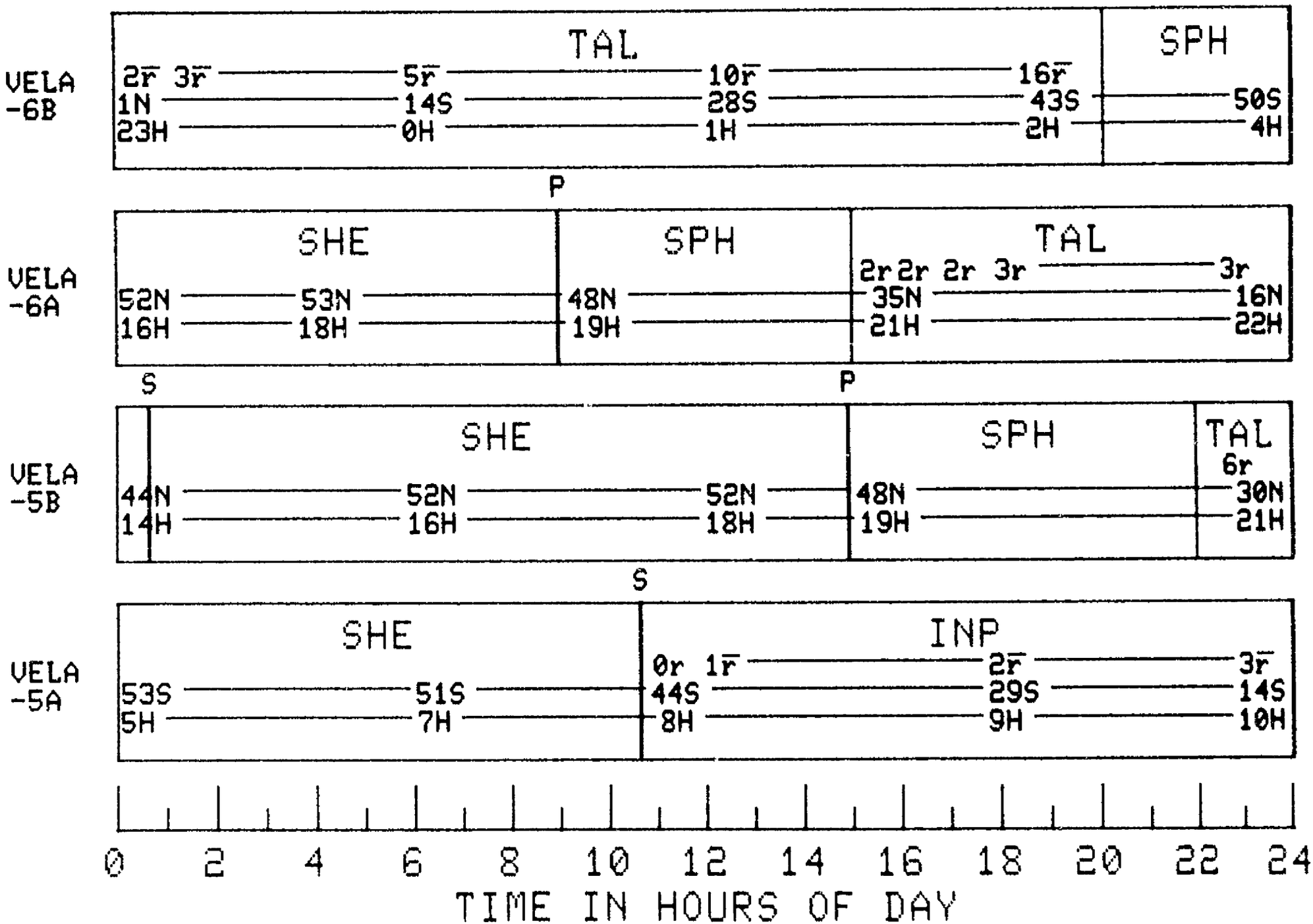
DAY 214 1977


P
S
SPH
SHE
INP
0r 0r
PROG
NOZ-5
48N
20S
63N
77N
79N
2H
2H
14H
14H
14H
P
C
SHE
SPH
HAWK
EYE-1
69N
78N
74N
70S
36N
0H
20H
20H
19H
22H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

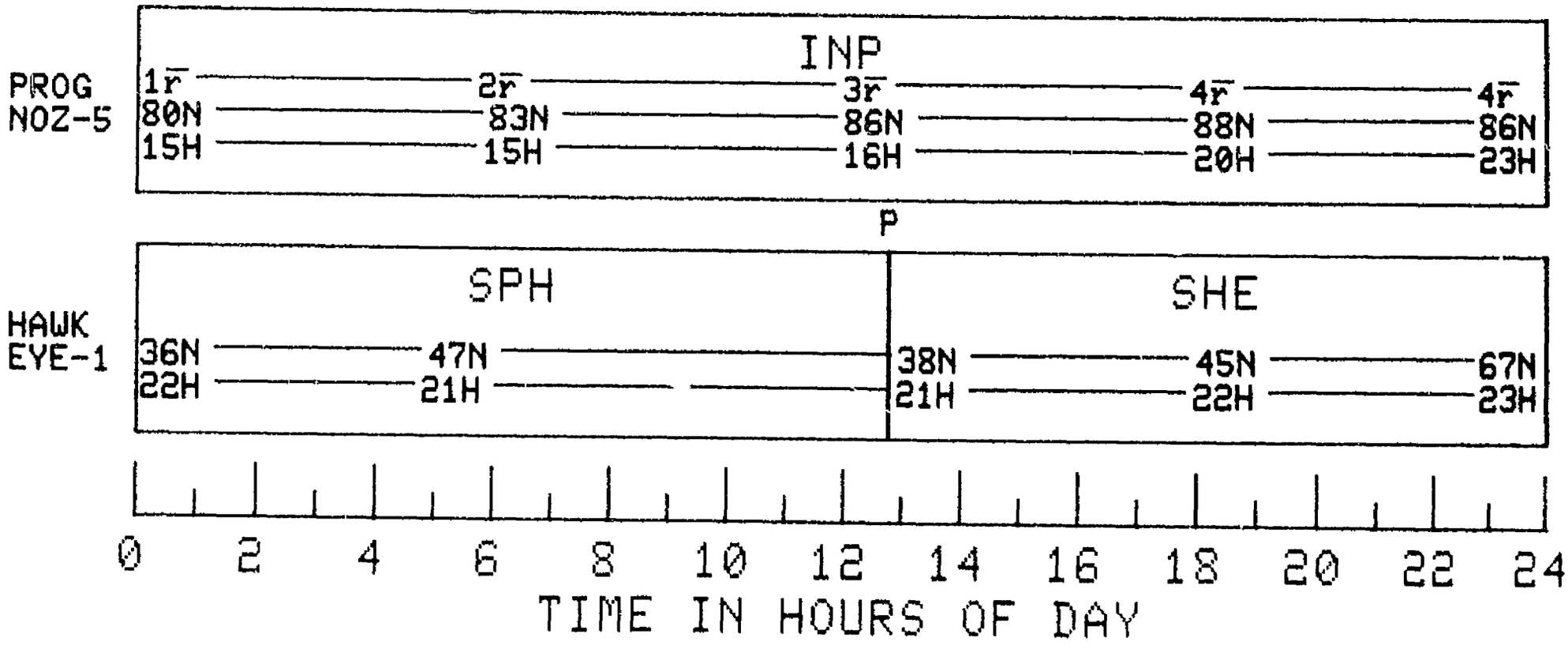
DAY 215 1977


IMP-J
INP
5r 8r 11r 13r 15r
38S 37S 34S 31S 27S
6H 7H 8H 8H 9H
P
IMP-H
SHE
8S
21H
TAL
13r 18r 17r 14r
10S 13S 16S 18S
22H 22H 23H 23H
SOL RAD -11B
INP
4r 5r 5r 5r 4r
3N 4N 5N 6N 5N
9H 10H 11H 13H 14H
SOL RAD -11A
TAL
5r 5r 6r 6r 4r
4S 5S 5S 6S 5S
22H 23H 24H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

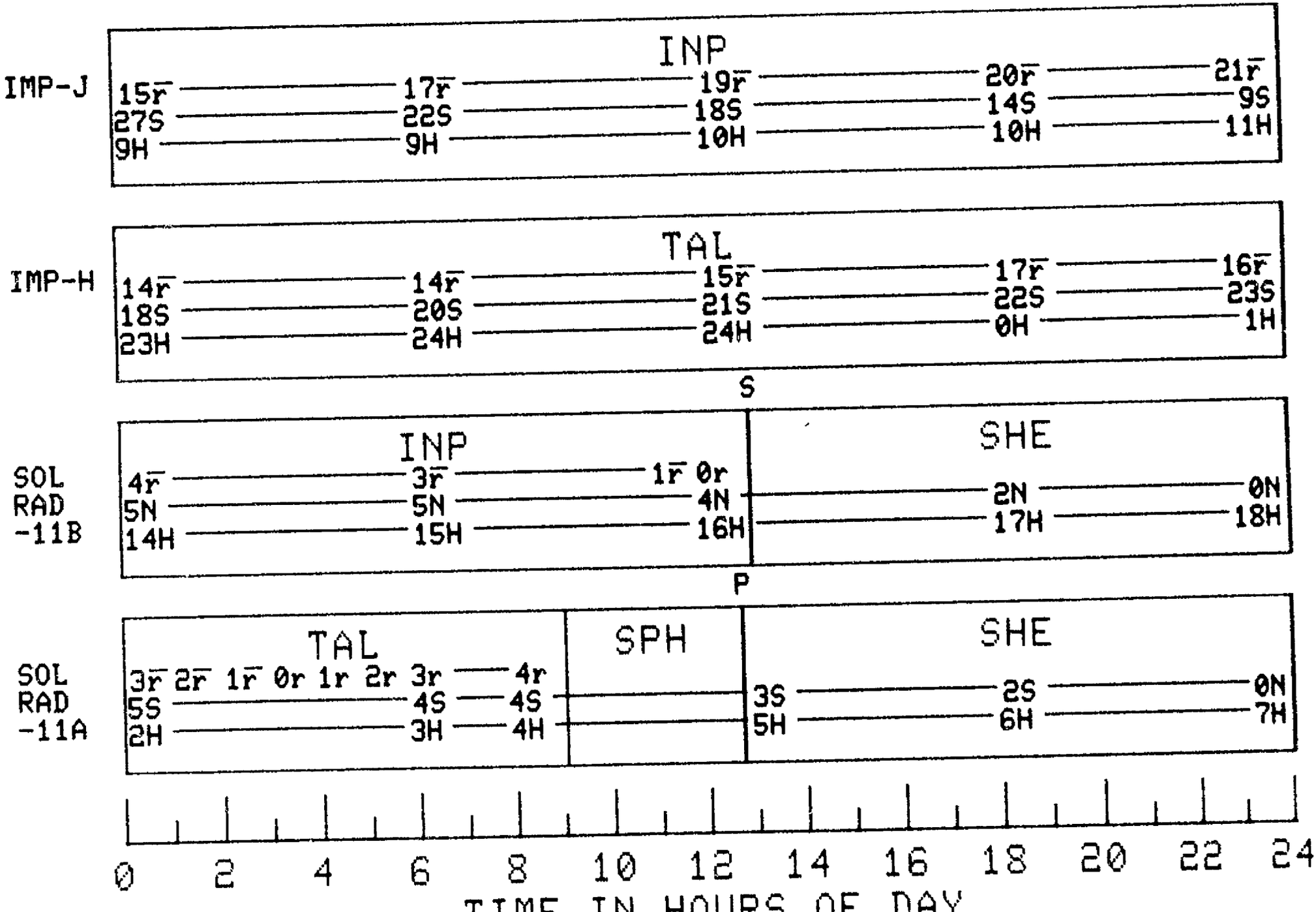
DAY 215 1977


VELA -6B
TAL
SPH
2r̄ 3r̄ 5r̄ 10r̄ 16r̄
1N 14S 28S 43S 50S
23H 0H 1H 2H 4H
P
VELA -6A
SHE
SPH
TAL
52N 53N 48N 2r 2r 2r 3r 3r
16H 18H 19H 35N 16N
21H 22H
S
P
VELA -5B
SHE
SPH
TAL 6r
44N 52N 52N 48N 30N
14H 16H 18H 19H 21H
S
VELA -5A
SHE
INP
0r 1r̄ 2r̄ 3r̄
53S 51S 44S 29S 14S
5H 7H 8H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

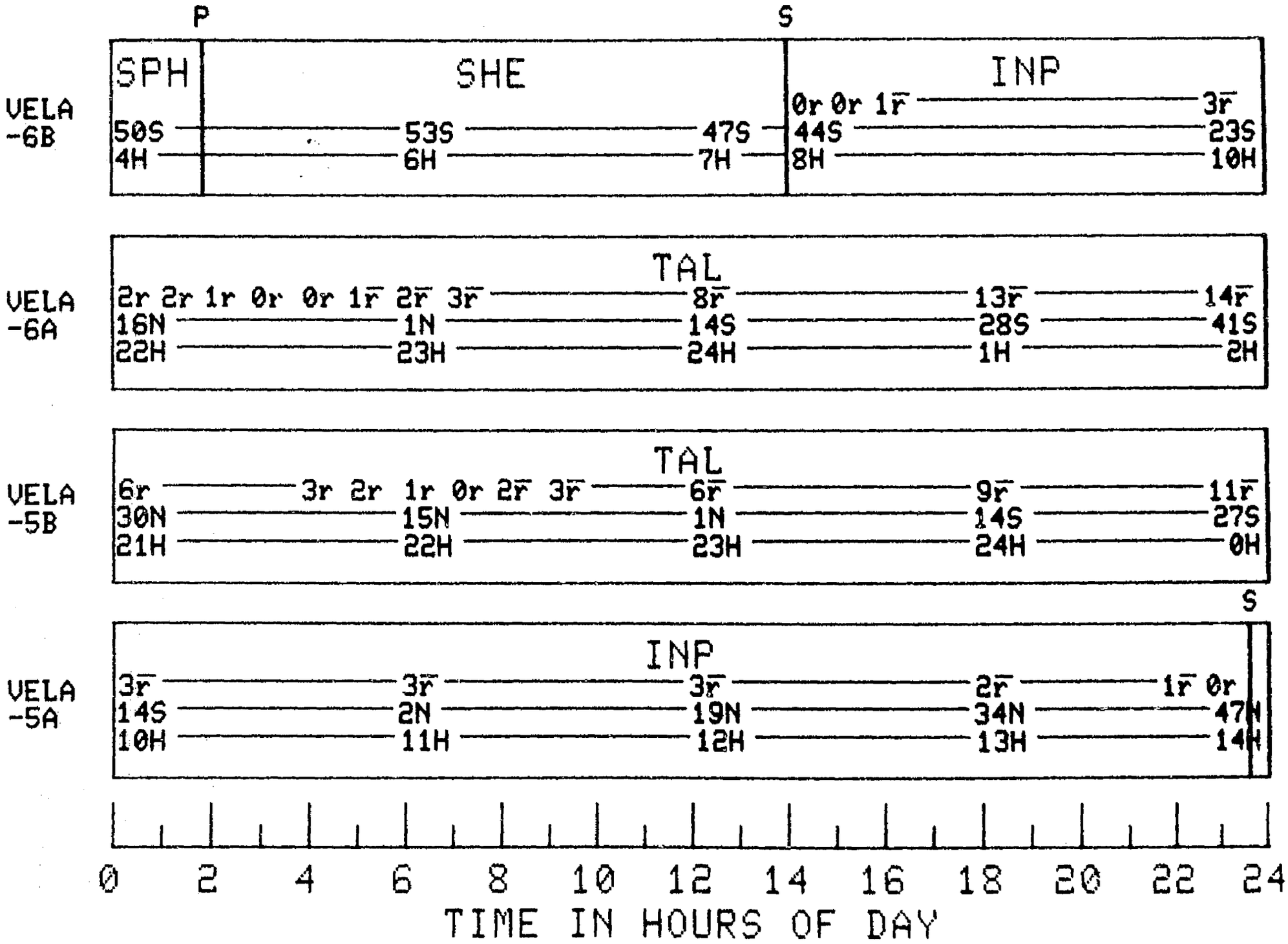
DAY 215 1977


INP
PROG
NOZ-5
1r̄
2r̄
3r̄
4r̄
4r̄
80N
83N
86N
88N
86N
15H
15H
16H
20H
23H
P
SPH
SHE
HAWK
EYE-1
36N
47N
38N
45N
67N
22H
21H
21H
22H
23H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

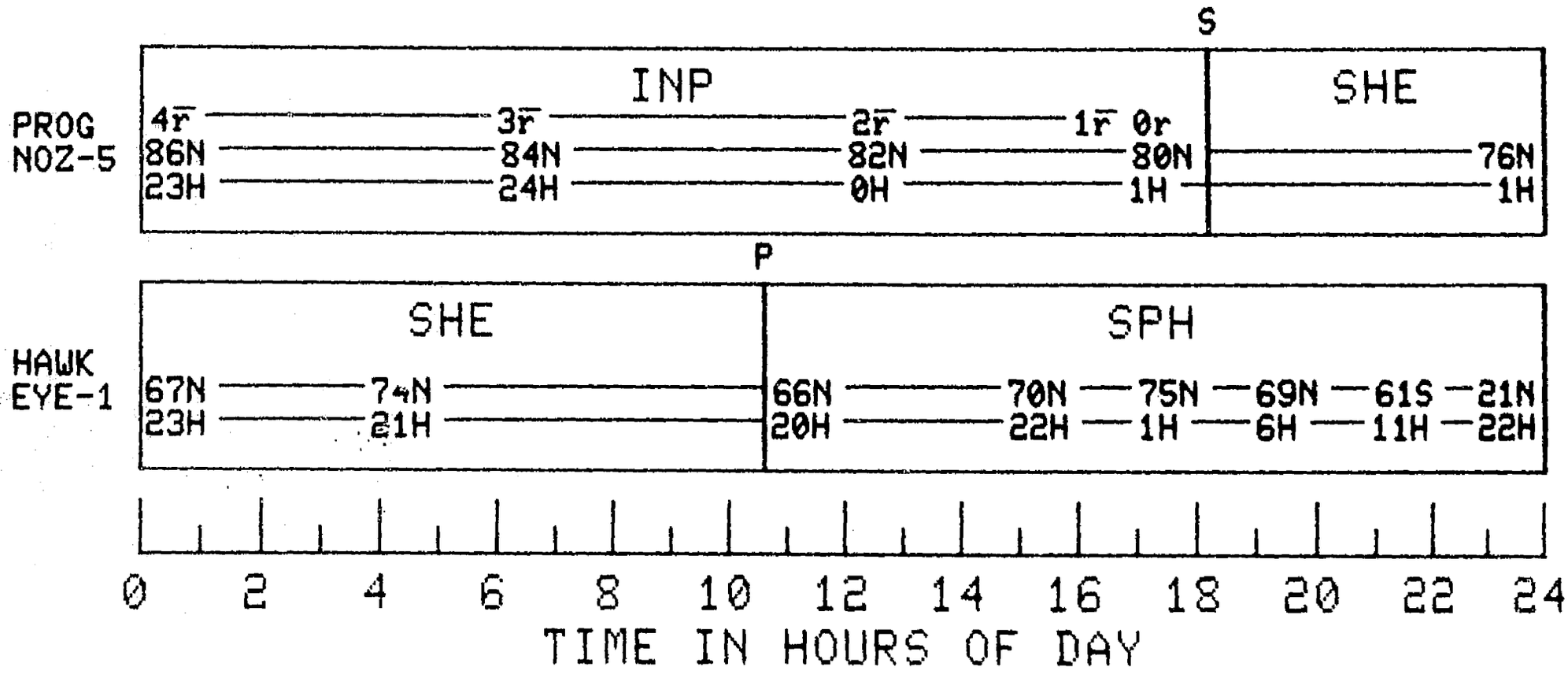
DAY 216 1977


IMP-J
INP
15r̄ 17r̄ 19r̄ 20r̄ 21r̄
27S 22S 18S 14S 9S
9H 9H 10H 10H 11H
IMP-H
TAL
14r̄ 14r̄ 15r̄ 17r̄ 16r̄
18S 20S 21S 22S 23S
23H 24H 24H 0H 1H
S
SOL RAD -11B
INP
4r̄ 3r̄ 1r̄ 0r
5N 5N 4N
14H 15H 16H
SHE
2N 0N
17H 18H
P
SOL RAD -11A
TAL
3r̄ 2r̄ 1r̄ 0r 1r 2r 3r 4r
5S 4S 4S
2H 3H 4H
SPH
SHE
3S 2S 0N
5H 6H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

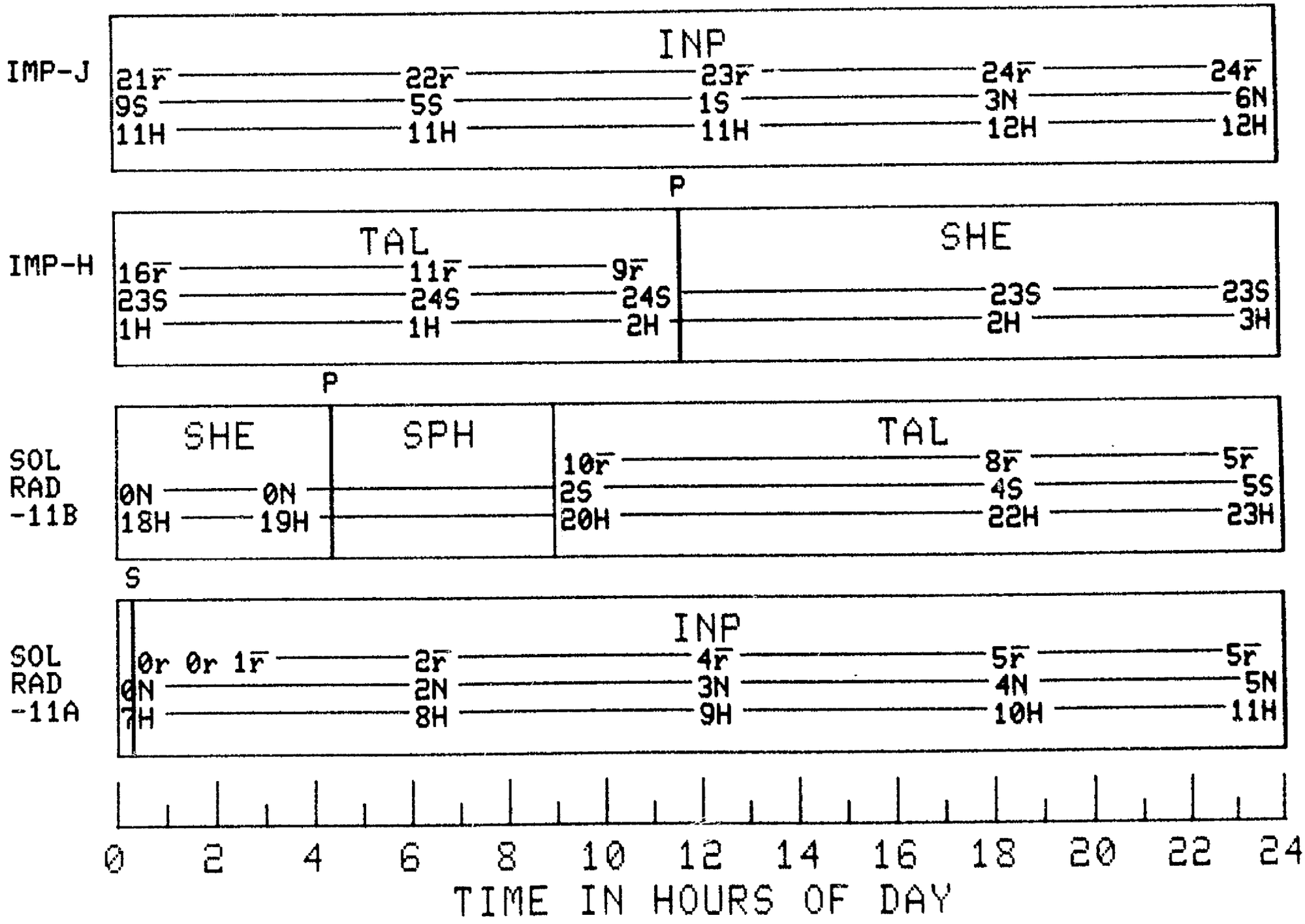
DAY 216 1977


P
S
SPH
SHE
INP
VELA -6B
50S 53S 47S
4H 6H 7H
0r 0r 1r̄ 3r̄
44S 23S
8H 10H
TAL
VELA -6A
2r 2r 1r 0r 0r 1r̄ 2r̄ 3r̄ 8r̄ 13r̄ 14r̄
16N 1N 14S 28S 41S
22H 23H 24H 1H 2H
TAL
VELA -5B
6r 3r 2r 1r 0r 2r̄ 3r̄ 6r̄ 9r̄ 11r̄
30N 15N 1N 14S 27S
21H 22H 23H 24H 0H
S
INP
VELA -5A
3r̄ 3r̄ 3r̄ 2r̄ 1r̄ 0r
14S 2N 19N 34N 47N
10H 11H 12H 13H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

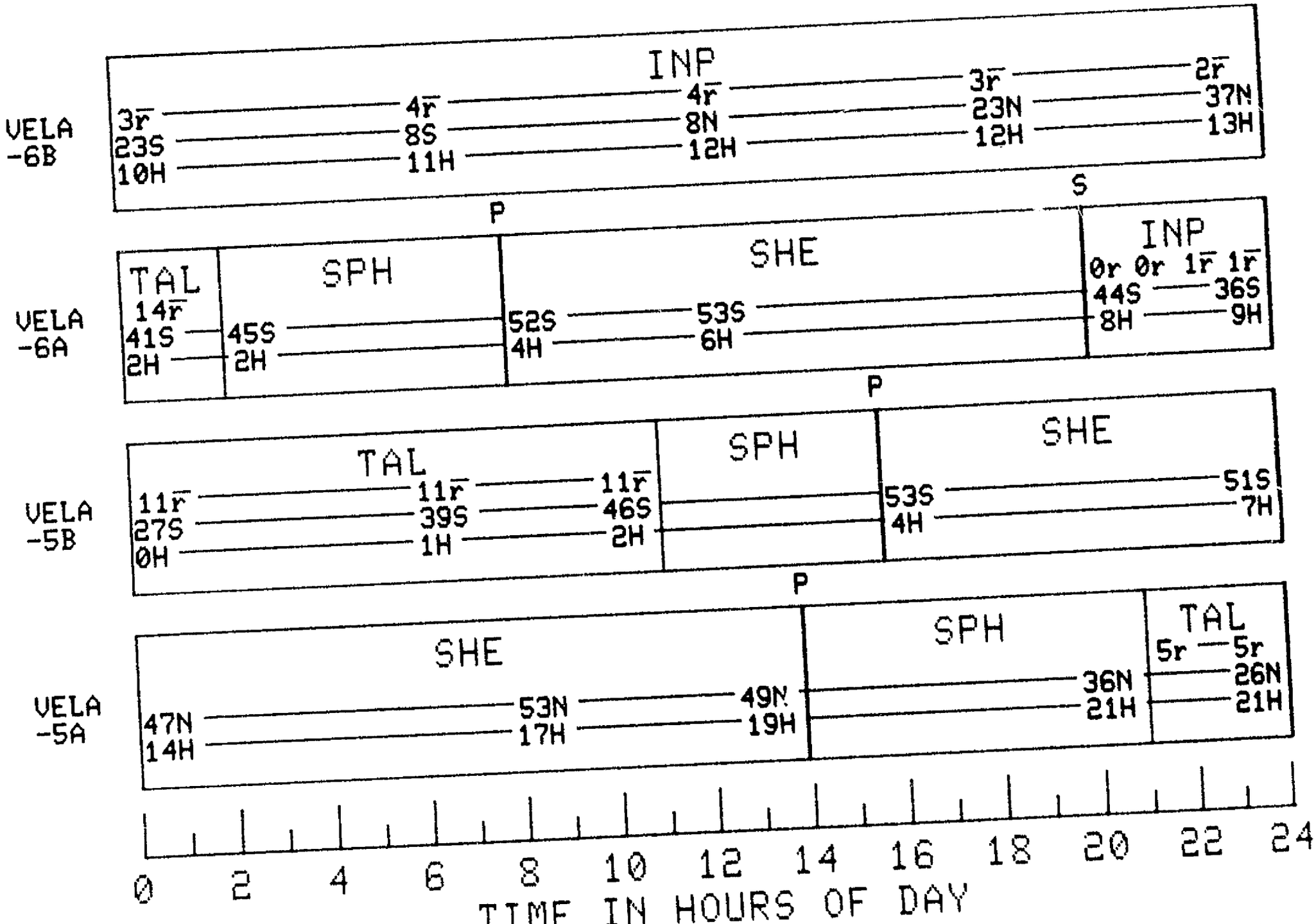
DAY 216 1977


S
INP
SHE
PROG
NOZ-5
4r 3r 2r 1r 0r
86N 84N 82N 80N 76N
23H 24H 0H 1H 1H
P
SHE
SPH
HAWK
EYE-1
67N 74N 66N 70N 75N 69N 61S 21N
23H 21H 20H 22H 1H 6H 11H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

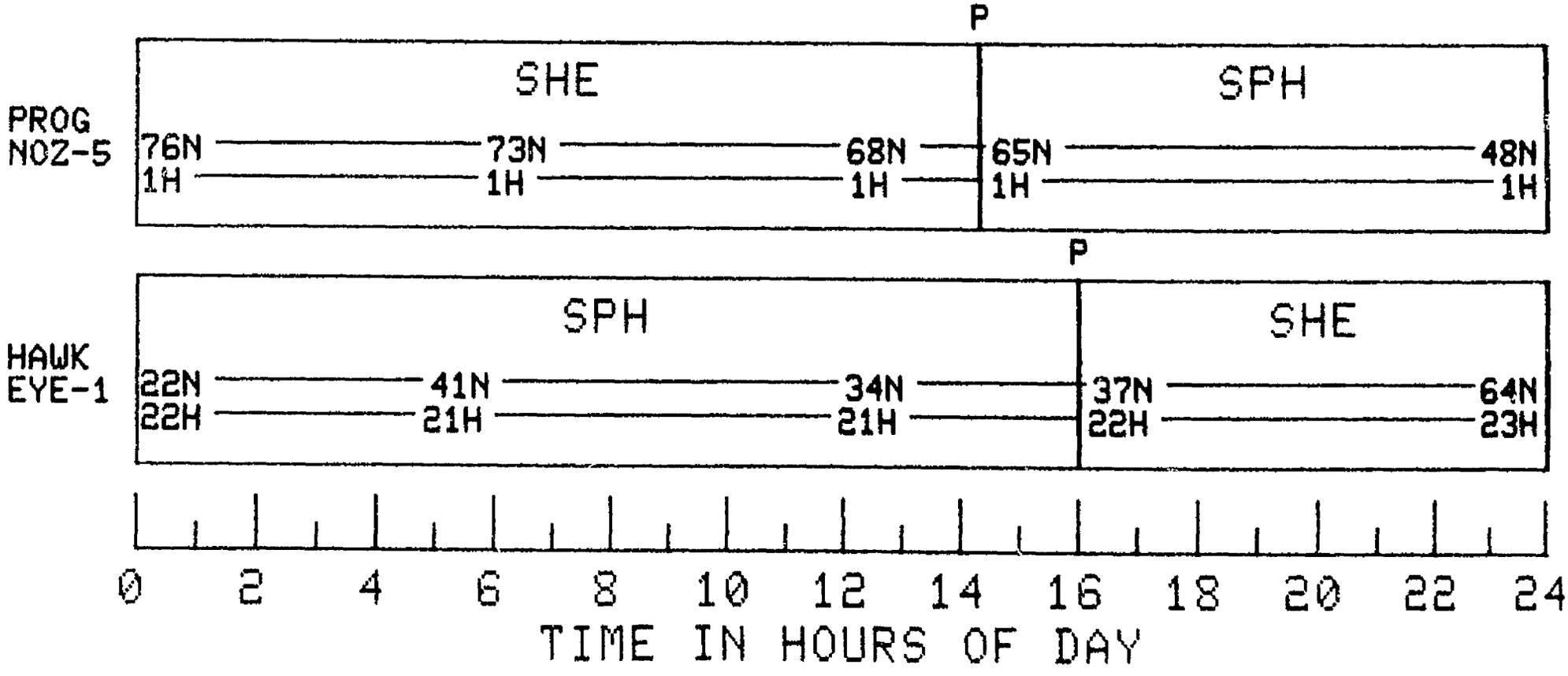
DAY 217 1977


IMP-J
INP
21r̄ 22r̄ 23r̄ 24r̄ 24r̄
9S 5S 1S 3N 6N
11H 11H 11H 12H 12H
P
IMP-H
TAL
16r̄ 11r̄ 9r̄
23S 24S 24S
1H 1H 2H
SHE
23S 23S
2H 3H
P
SOL RAD -11B
SHE
0N 0N
18H 19H
SPH
TAL
10r̄ 8r̄ 5r̄
2S 4S 5S
20H 22H 23H
S
SOL RAD -11A
INP
0r 0r 1r̄ 2r̄ 4r̄ 5r̄ 5r̄
0N 2N 3N 4N 5N
7H 8H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

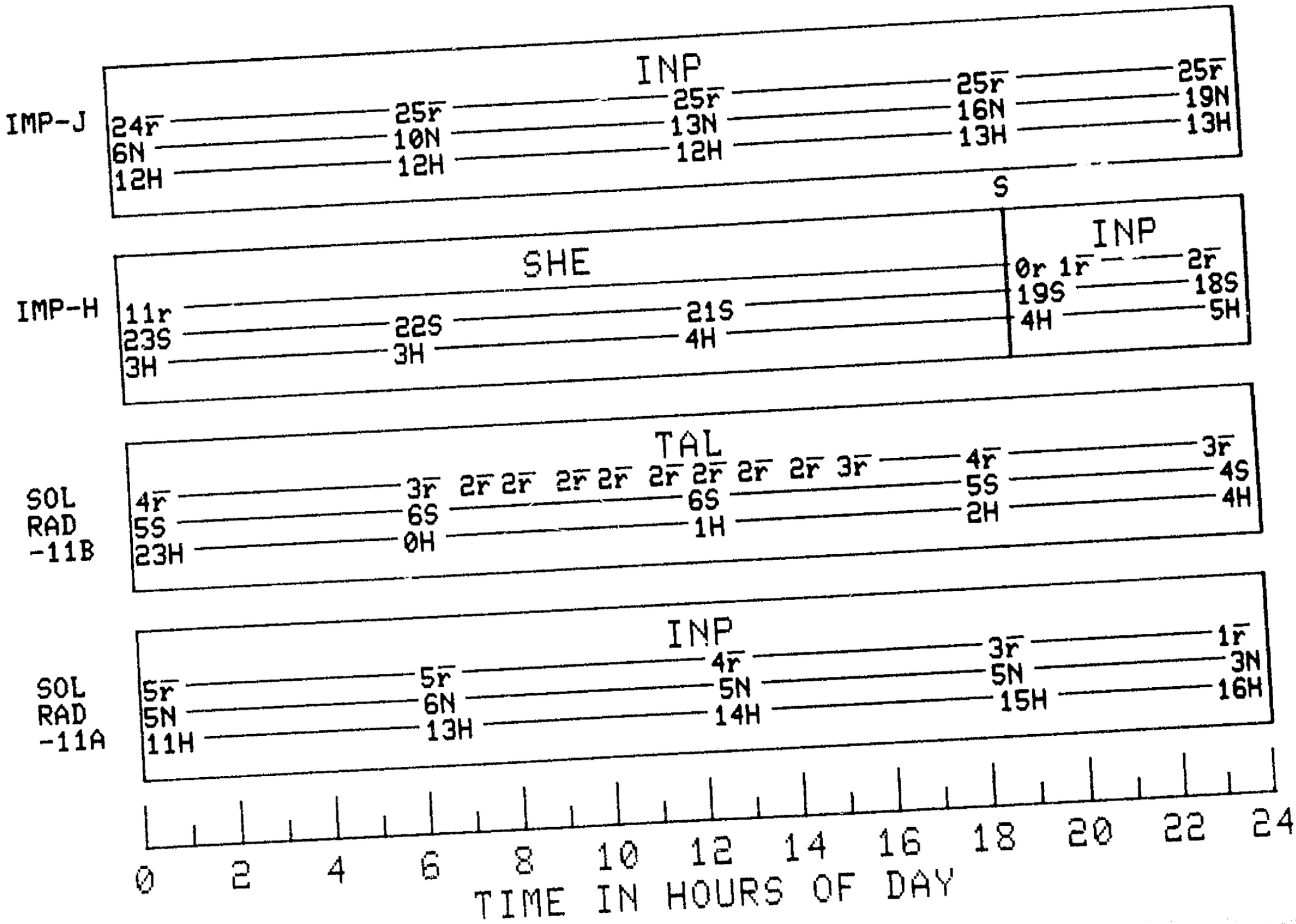
DAY 217 1977

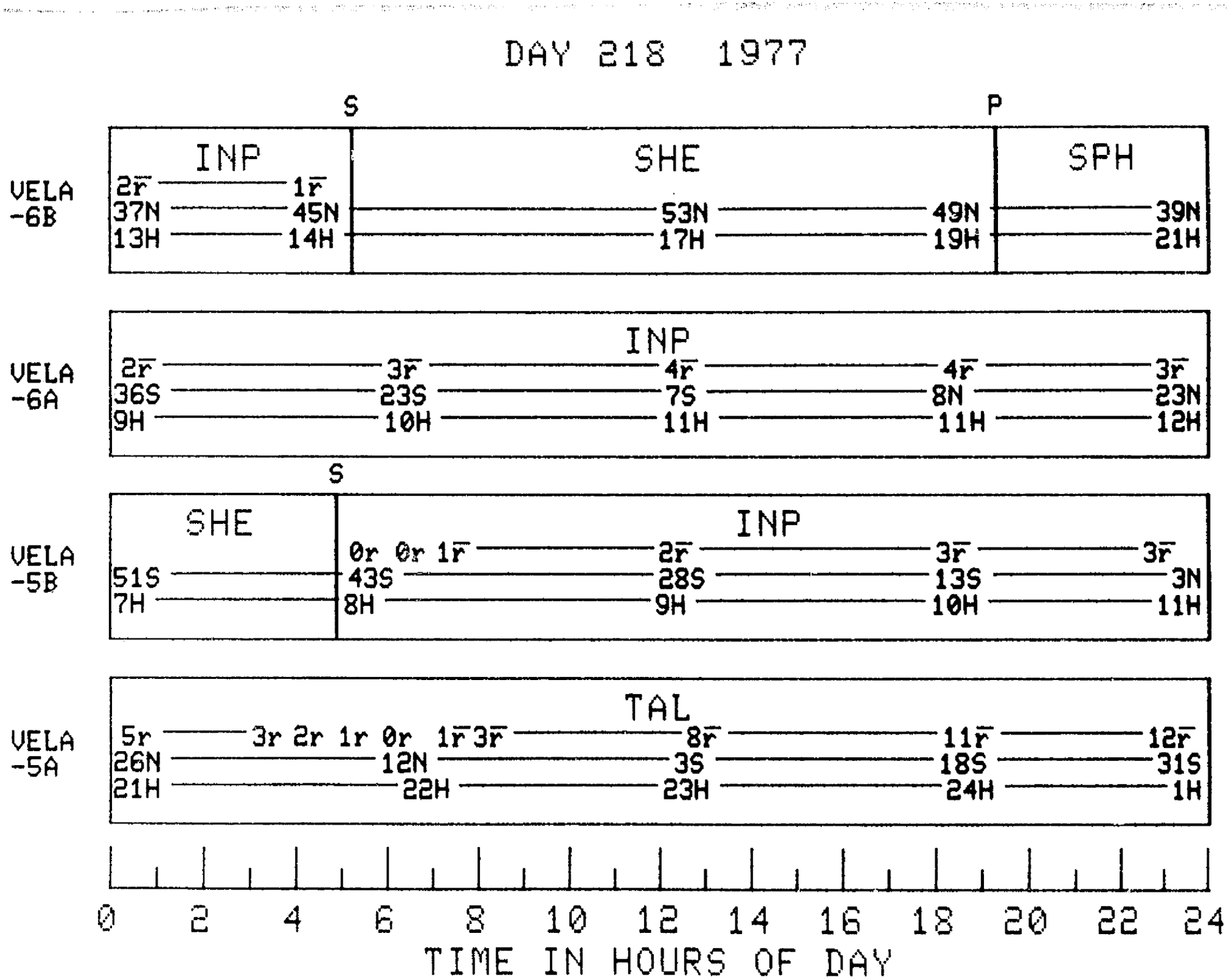

VELA -6B
INP
3r̄ 23S 10H
4r̄ 8S 11H
4r̄ 8N 12H
3r̄ 23N 12H
2r̄ 37N 13H
VELA -6A
P
S
TAL
14r̄ 41S 2H
SPH
45S 2H
SHE
52S 4H
53S 6H
INP
0r 0r 1r̄ 1r̄
44S 8H
36S 9H
VELA -5B
P
TAL
11r̄ 27S 0H
11r̄ 39S 1H
11r̄ 46S 2H
SPH
SHE
53S 4H
51S 7H
VELA -5A
P
SHE
47N 14H
53N 17H
49N 19H
SPH
36N 21H
TAL
5r 5r
26N 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 217 1977

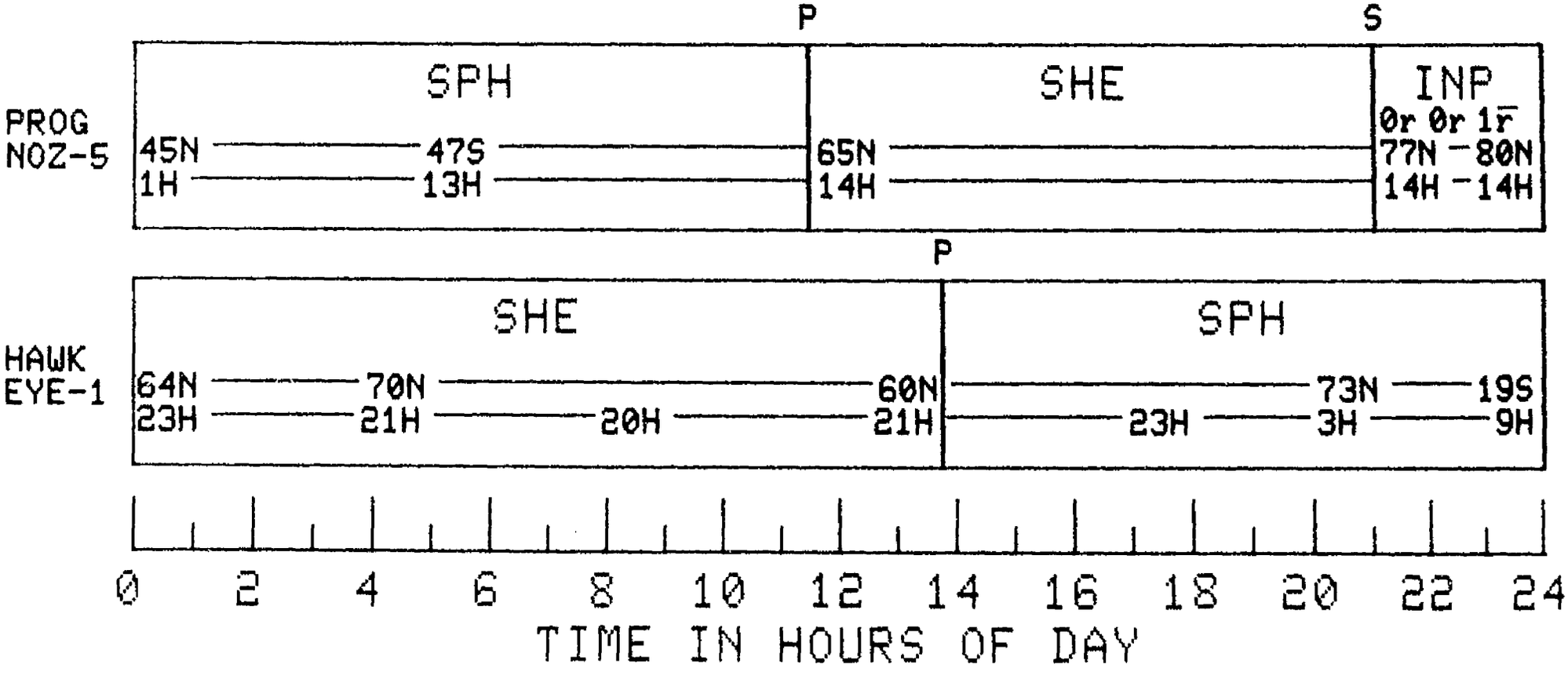

P
SHE
SPH
PROG
NOZ-5
76N
73N
68N
65N
48N
1H
1H
1H
1H
1H
P
SPH
SHE
HAWK
EYE-1
22N
41N
34N
37N
64N
22H
21H
21H
22H
23H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 218 1977

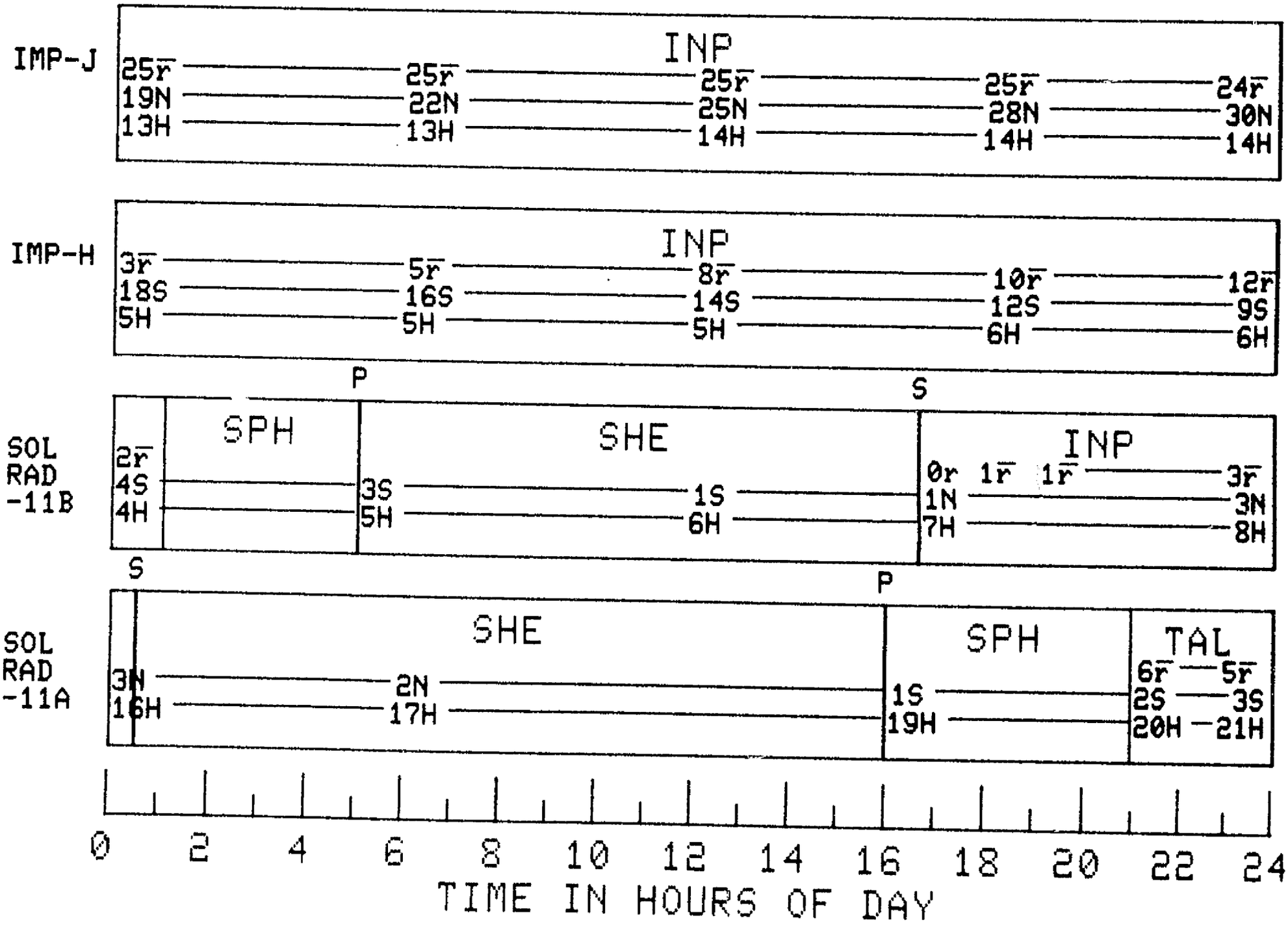

IMP-J
INP
24r 6N 12H
25r 10N 12H
25r 13N 12H
25r 16N 13H
25r 19N 13H
S
IMP-H
SHE
11r 23S 3H
22S 3H
21S 4H
INP
0r 1r 19S 4H
2r 18S 5H
SOL RAD -11B
TAL
4r 5S 23H
3r 6S 0H
2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 3r
6S 1H
4r 5S 2H
3r 4S 4H
SOL RAD -11A
INP
5r 5N 11H
5r 6N 13H
4r 5N 14H
3r 5N 15H
1r 3N 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 218 1977
S
P
INP
SHE
SPH
VELA -6B
2r 1r
37N 45N 53N 49N 39N
13H 14H 17H 19H 21H
INP
VELA -6A
2r 3r 4r 4r 3r
36S 23S 7S 8N 23N
9H 10H 11H 11H 12H
S
SHE
INP
VELA -5B
0r 0r 1r 2r 3r 3r
51S 43S 28S 13S 3N
7H 8H 9H 10H 11H
TAL
VELA -5A
5r 3r 2r 1r 0r 1r 3r 8r 11r 12r
26N 12N 3S 18S 31S
21H 22H 23H 24H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

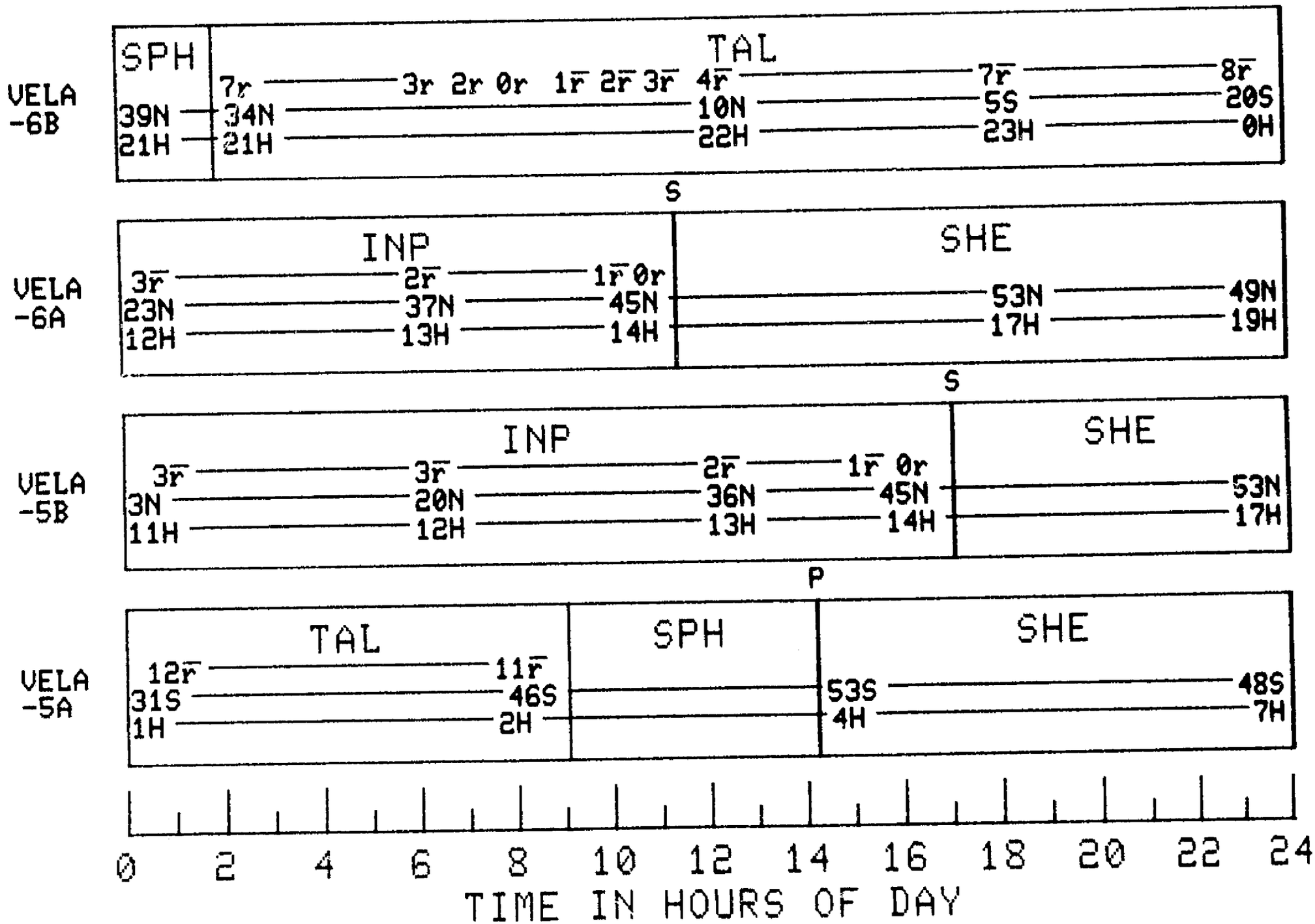
DAY 218 1977


P
S
SPH
SHE
INP
PROG
NOZ-5
45N
47S
65N
0r 0r 1r̄
1H
13H
14H
77N - 80N
14H - 14H
P
SHE
SPH
HAWK
EYE-1
64N
70N
60N
73N
19S
23H
21H
20H
21H
23H
3H
9H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

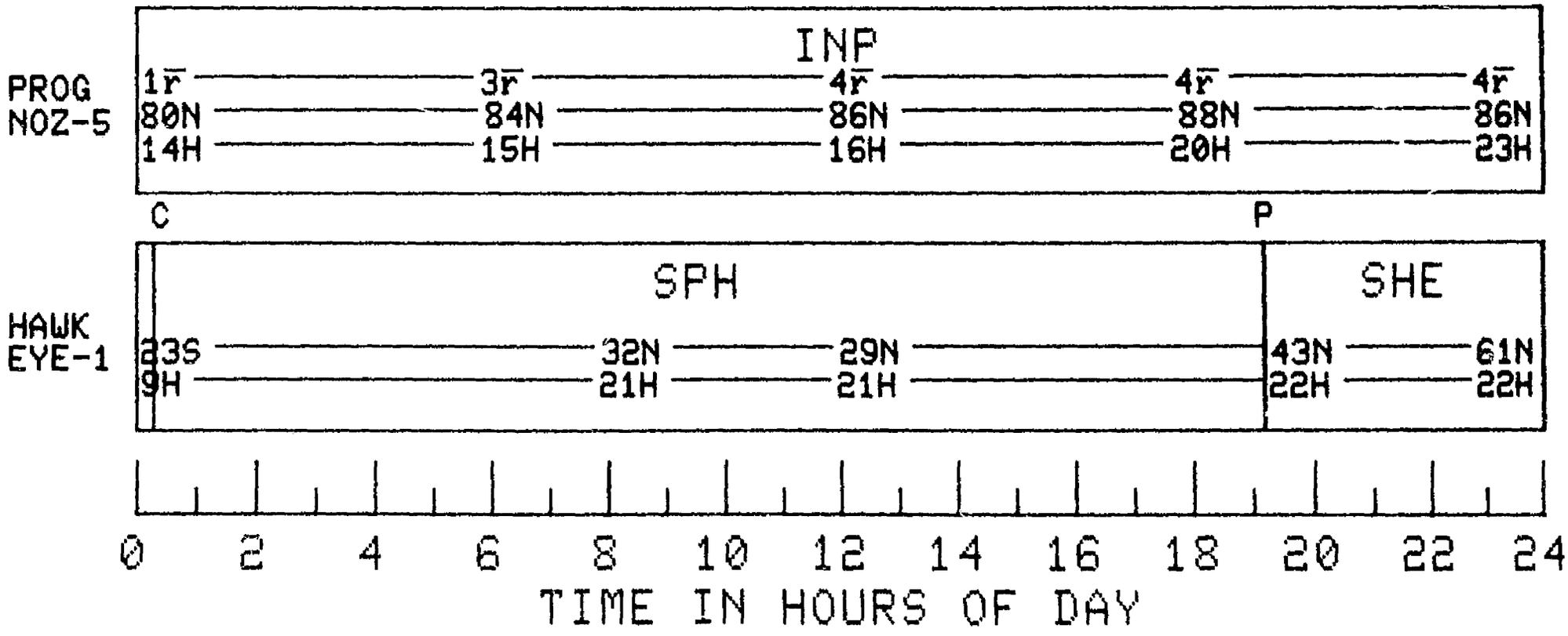
DAY 219 1977


IMP-J
INP
25r 25r 25r 25r 24r
19N 22N 25N 28N 30N
13H 13H 14H 14H 14H
IMP-H
INP
3r 5r 8r 10r 12r
18S 16S 14S 12S 9S
5H 5H 5H 6H 6H
P
S
SOL RAD -11B
SPH
SHE
INP
2r
4S 3S 1S 0r 1r 1r 3r
4H 5H 6H 1N 3N
7H 8H
S
P
SOL RAD -11A
SHE
SPH
TAL
3N 2N 1S 6r 5r
16H 17H 19H 2S 3S
20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

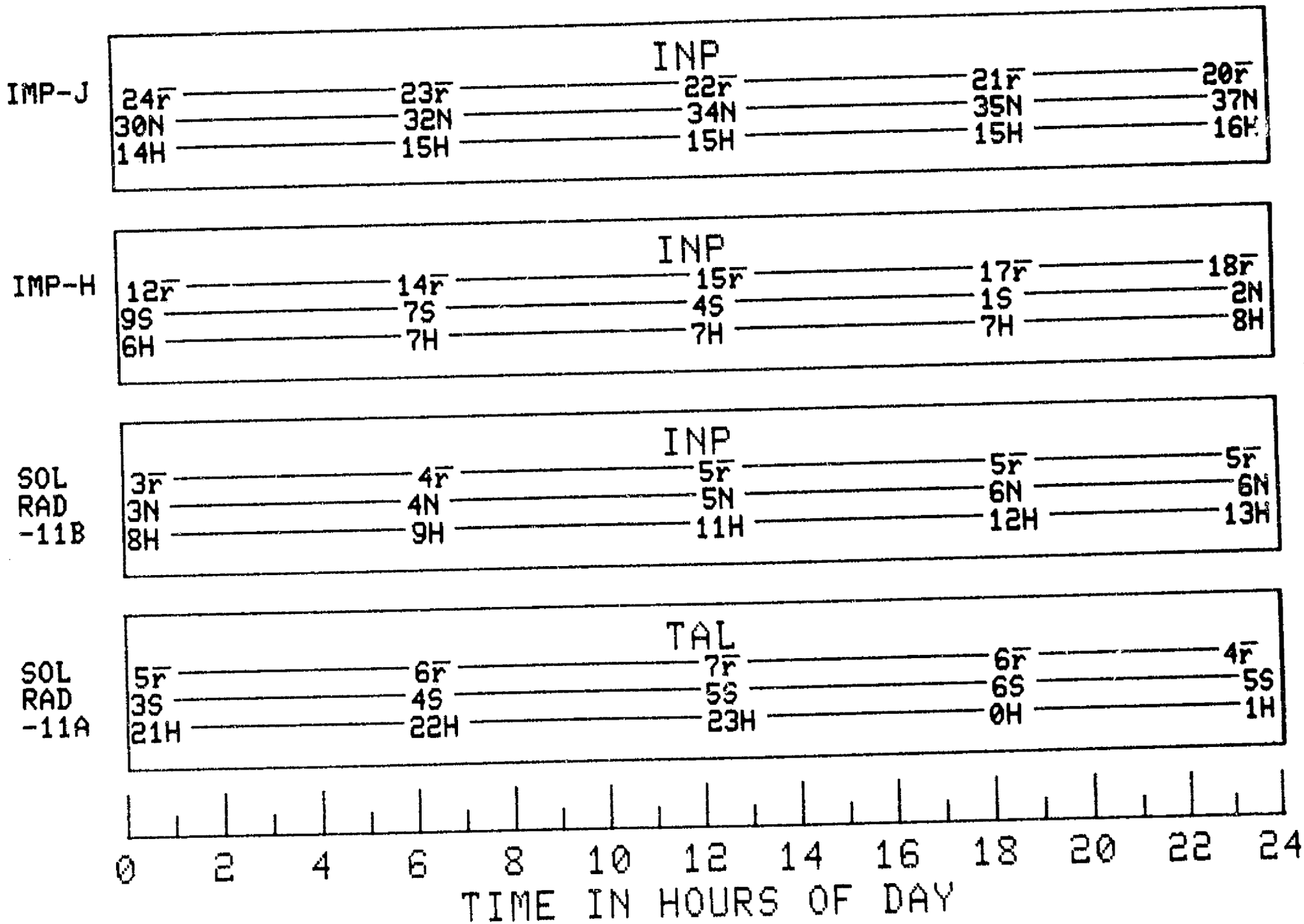
DAY 219 1977


VELA -6B
SPH
39N
21H
TAL
7r
3r 2r 0r 1r 2r 3r 4r
34N
21H
10N
22H
7r
5S
23H
8r
20S
0H
S
VELA -6A
INP
3r
23N
12H
2r
37N
13H
1r 0r
45N
14H
SHE
53N
17H
49N
19H
S
VELA -5B
INP
3r
3N
11H
3r
20N
12H
2r
36N
13H
1r 0r
45N
14H
SHE
53N
17H
P
VELA -5A
TAL
12r
31S
1H
11r
46S
2H
SPH
53S
4H
SHE
48S
7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

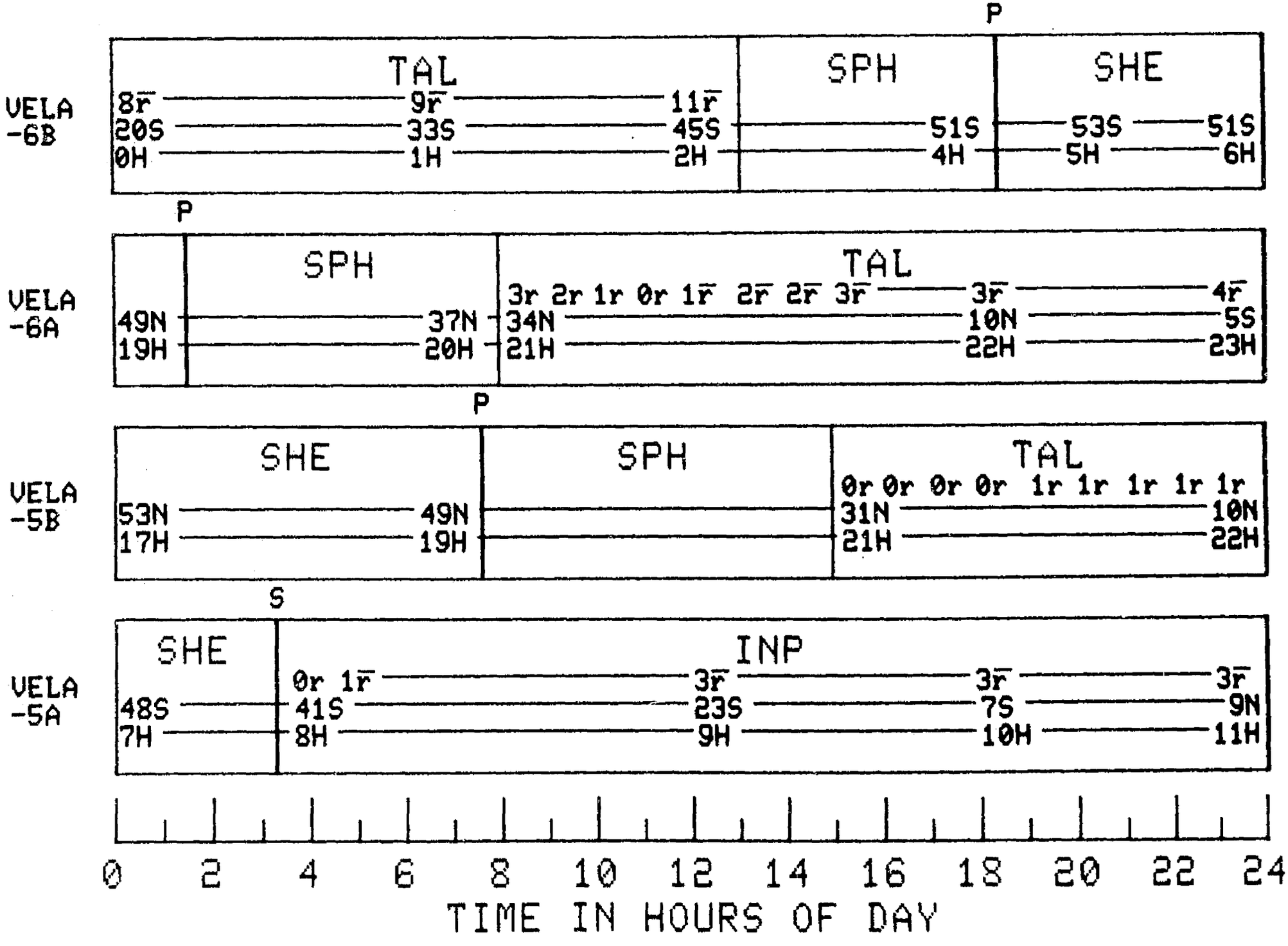
DAY 219 1977


INP
PROG
NOZ-5
1r
80N
14H
3r
84N
15H
4r
86N
16H
4r
88N
20H
4r
86N
23H
C
P
SPH
SHE
HAWK
EYE-1
33S
9H
32N
21H
29N
21H
43N
22H
61N
22H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

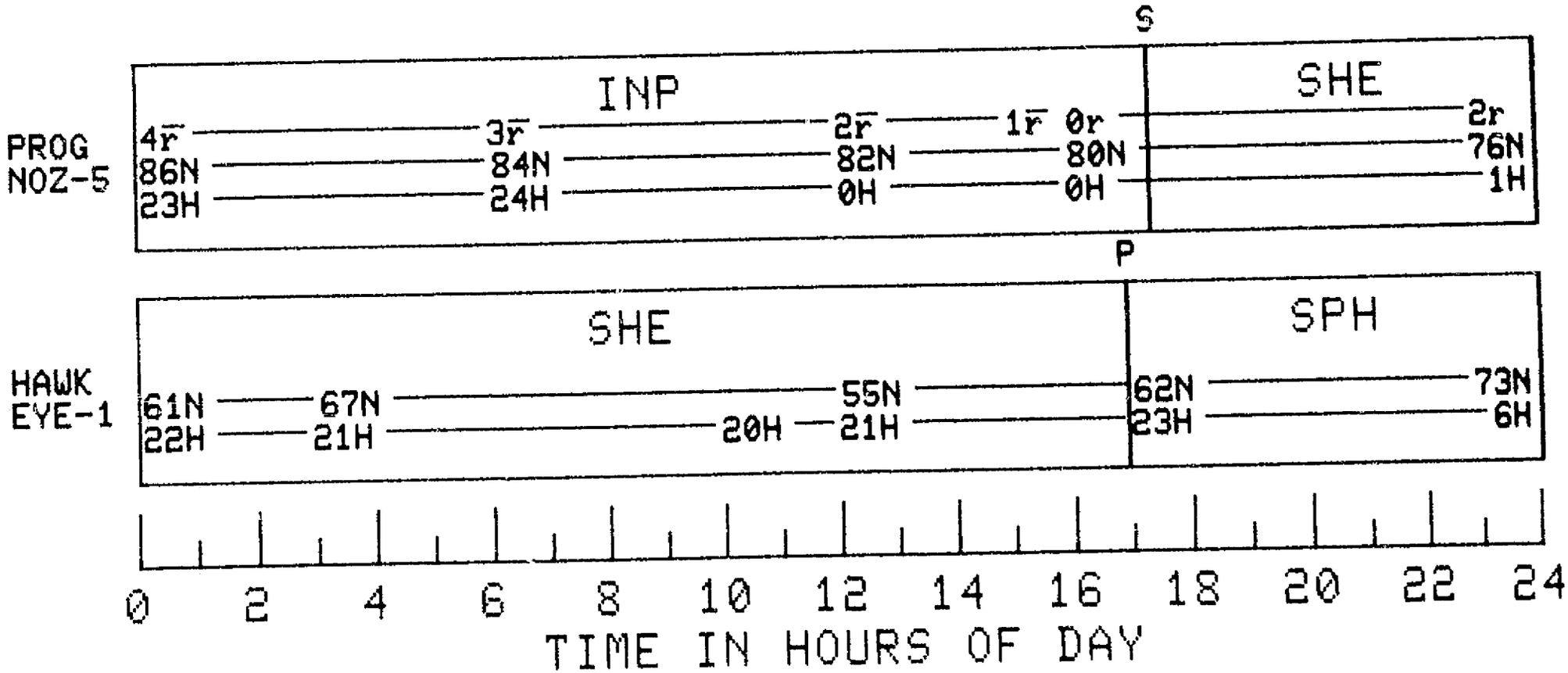
DAY 220 1977


IMP-J
INP
24r̄ 23r̄ 22r̄ 21r̄ 20r̄
30N 32N 34N 35N 37N
14H 15H 15H 15H 16H
IMP-H
INP
12r̄ 14r̄ 15r̄ 17r̄ 18r̄
9S 7S 4S 1S 2N
6H 7H 7H 7H 8H
SOL RAD -11B
INP
3r̄ 4r̄ 5r̄ 5r̄ 5r̄
3N 4N 5N 6N 6N
8H 9H 11H 12H 13H
SOL RAD -11A
TAL
5r̄ 6r̄ 7r̄ 6r̄ 4r̄
3S 4S 5S 6S 5S
21H 22H 23H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

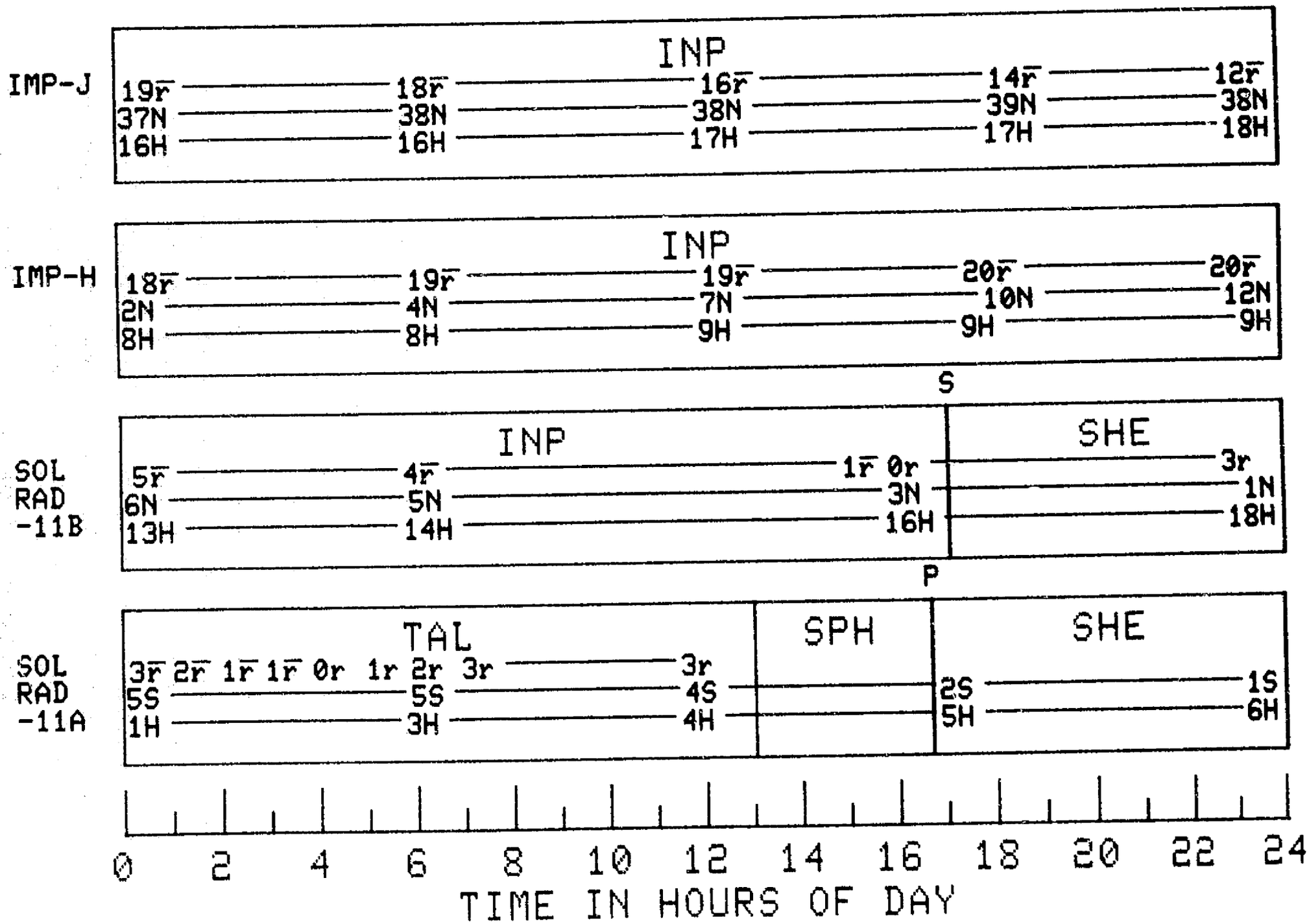
DAY 220 1977

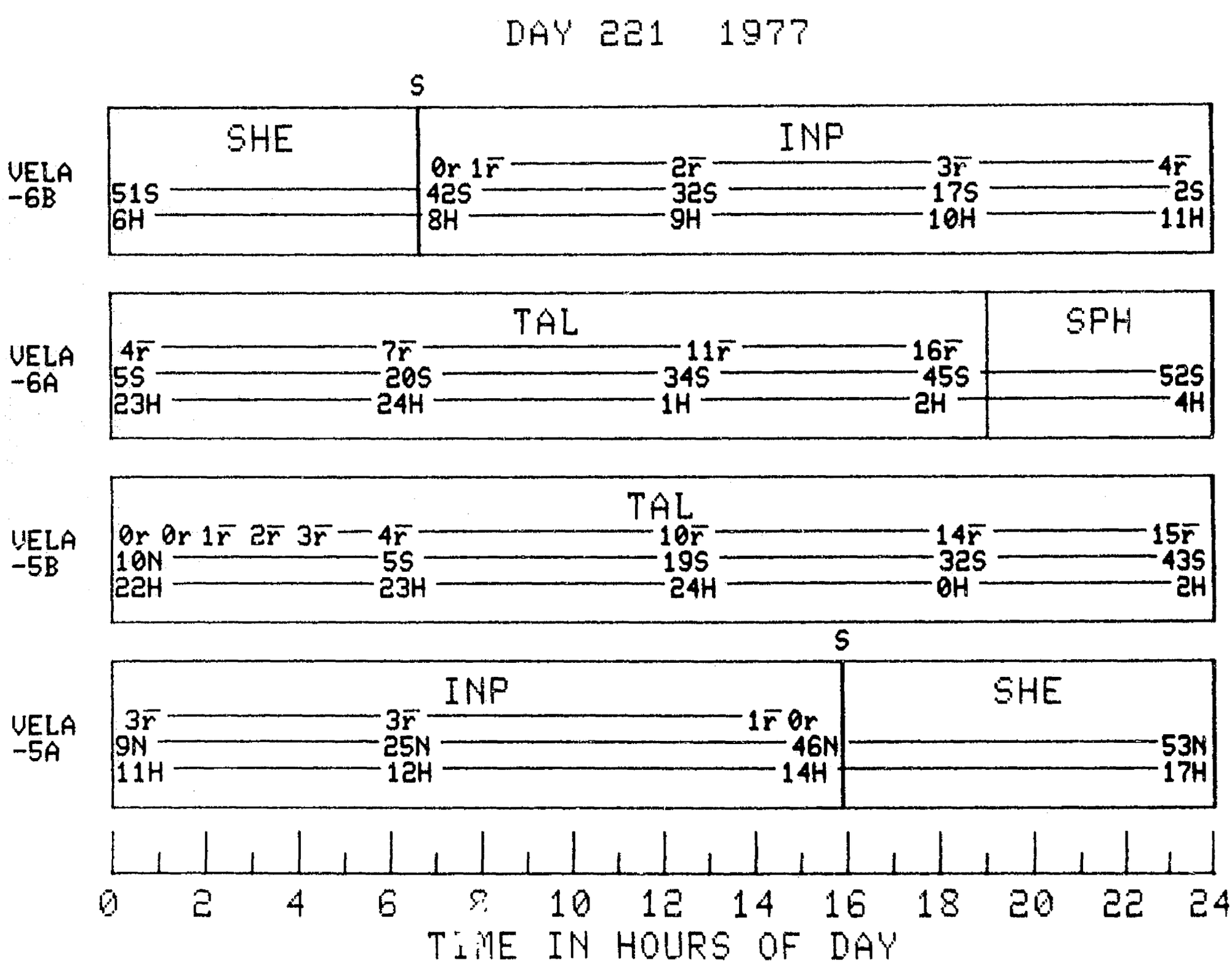

VELA -6B
P
TAL
SPH
SHE
8r̄ 9r̄ 11r̄
20S 33S 45S 51S 53S 51S
0H 1H 2H 4H 5H 6H
VELA -6A
P
SPH
TAL
3r 2r 1r 0r 1r̄ 2r̄ 2r̄ 3r̄ 3r̄ 4r̄
49N 37N 34N 10N 5S
19H 20H 21H 22H 23H
VELA -5B
P
SHE
SPH
TAL
0r 0r 0r 0r 1r 1r 1r 1r 1r
53N 49N 31N 10N
17H 19H 21H 22H
VELA -5A
S
SHE
INP
0r 1r̄ 3r̄ 3r̄ 3r̄
48S 41S 23S 7S 9N
7H 8H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 220 1977

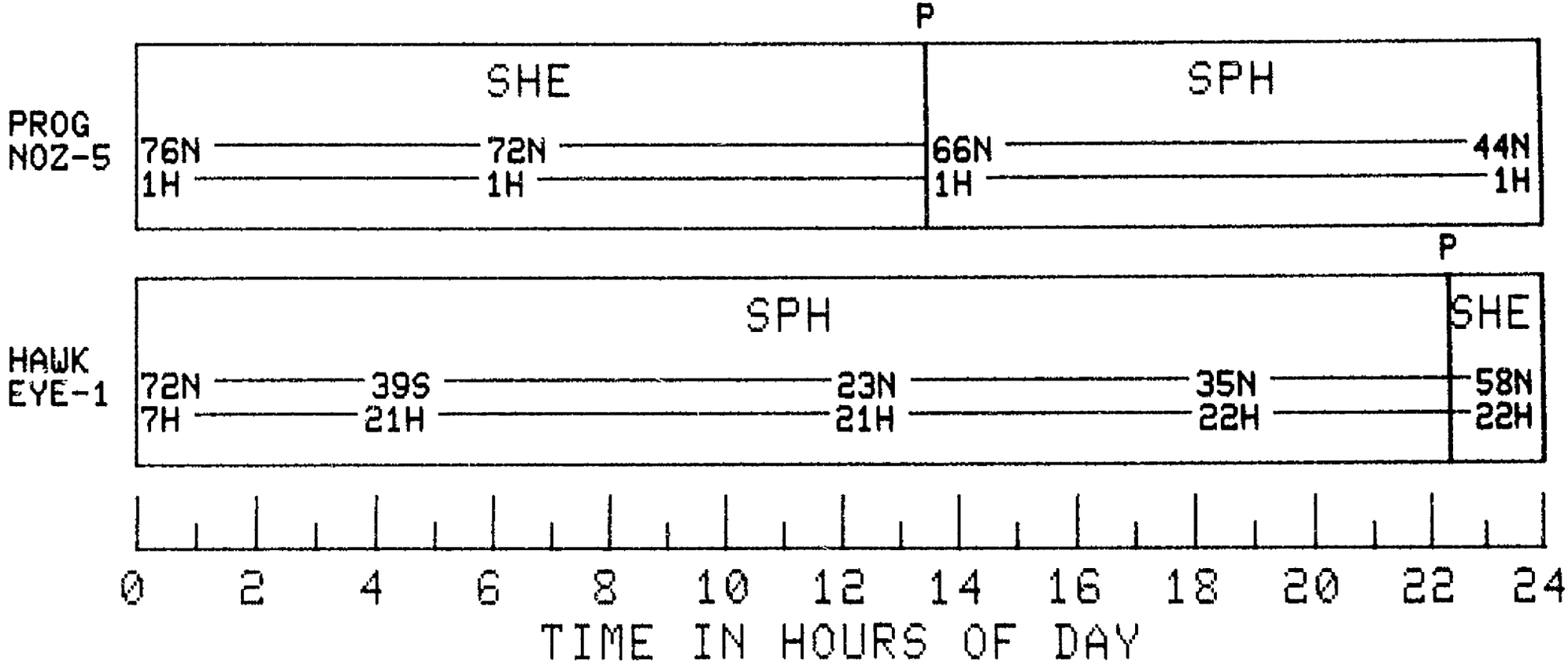

S
INP
SHE
PROG
NOZ-5
4r̄
3r̄
2r̄
1r̄
0r
2r
86N
84N
82N
80N
76N
23H
24H
0H
0H
1H
P
SHE
SPH
HAWK
EYE-1
61N
67N
55N
62N
73N
22H
21H
20H
21H
23H
6H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

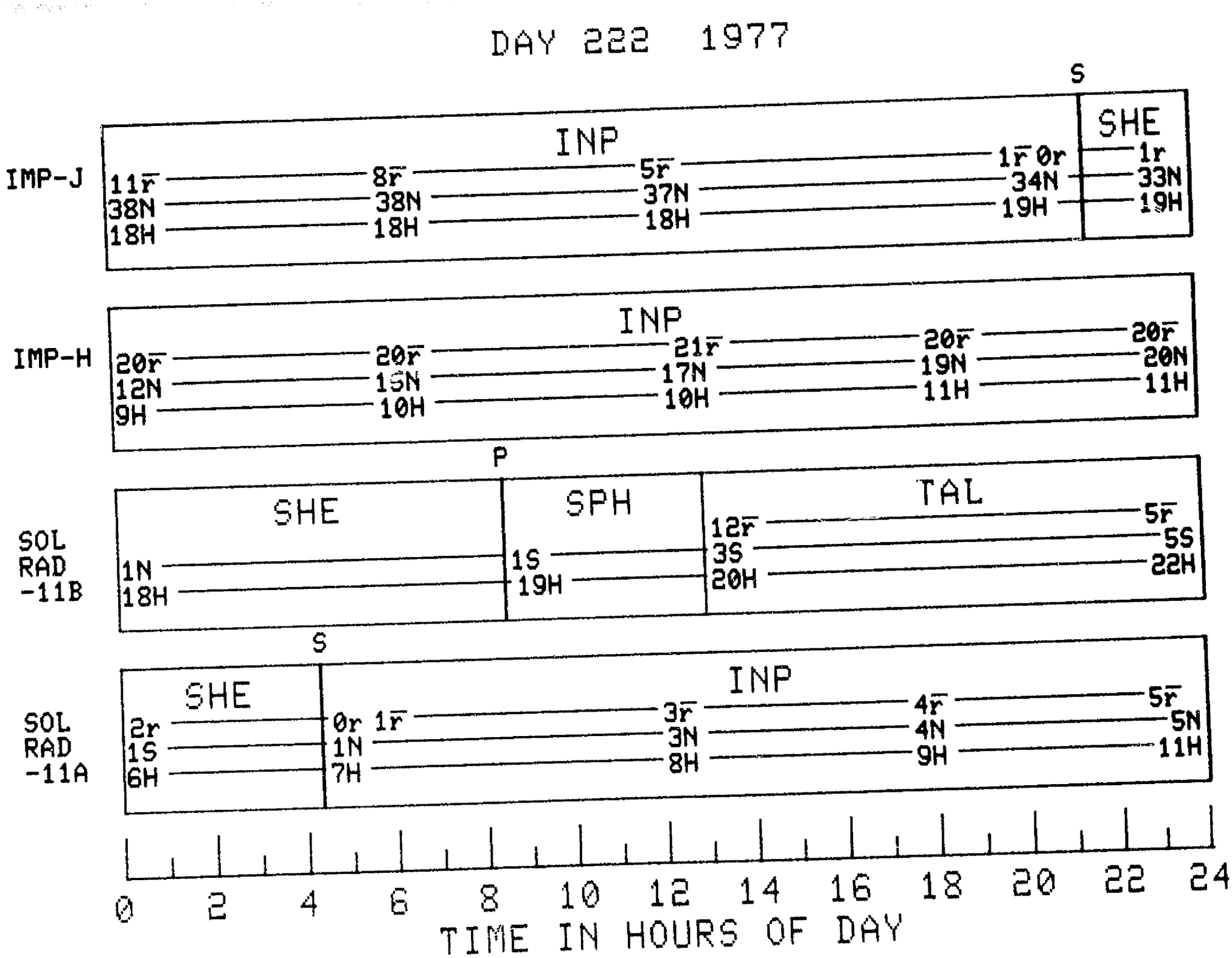
DAY 221 1977


IMP-J
INP
19r̄ 18r̄ 16r̄ 14r̄ 12r̄
37N 38N 38N 39N 38N
16H 16H 17H 17H 18H
IMP-H
INP
18r̄ 19r̄ 19r̄ 20r̄ 20r̄
2N 4N 7N 10N 12N
8H 8H 9H 9H 9H
S
SOL RAD -11B
INP
SHE
5r̄ 4r̄ 1r̄ 0r 3r
6N 5N 3N 1N
13H 14H 16H 18H
P
SOL RAD -11A
TAL
SPH
SHE
3r̄ 2r̄ 1r̄ 1r̄ 0r 1r 2r 3r 3r
5S 5S 4S 2S 1S
1H 3H 4H 5H 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

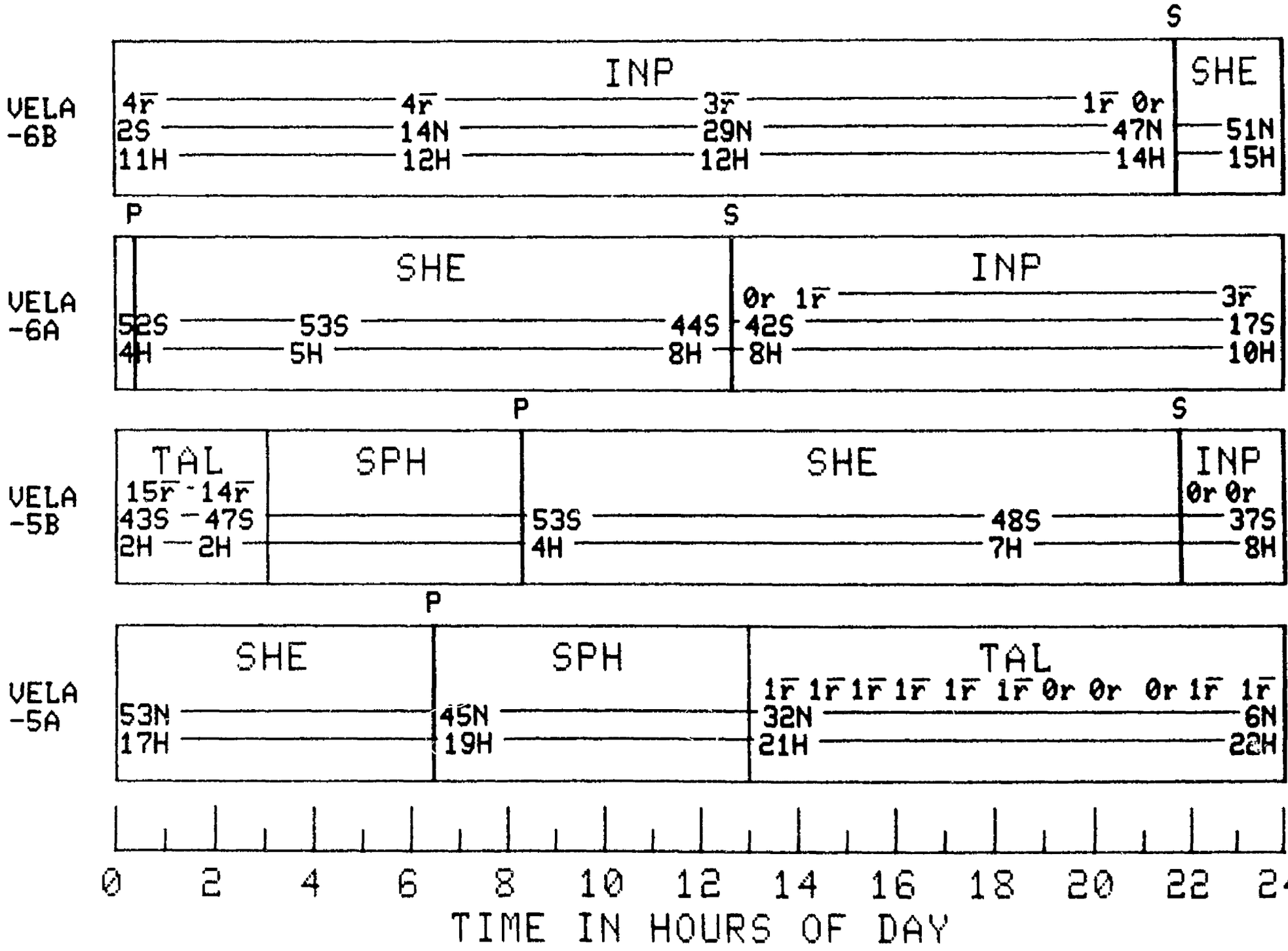

DAY 221 1977
S
SHE
INP
VELA -6B
51S 6H
0r 1r 42S 8H
2r 32S 9H
3r 17S 10H
4r 2S 11H
TAL
SPH
VELA -6A
4r 5S 23H
7r 20S 24H
11r 34S 1H
16r 45S 2H
52S 4H
TAL
VELA -5B
0r 0r 1r 2r 3r 4r 10N 22H
5S 23H
10r 19S 24H
14r 32S 0H
15r 43S 2H
S
INP
SHE
VELA -5A
3r 9N 11H
3r 25N 12H
1r 0r 46N 14H
53N 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 221 1977

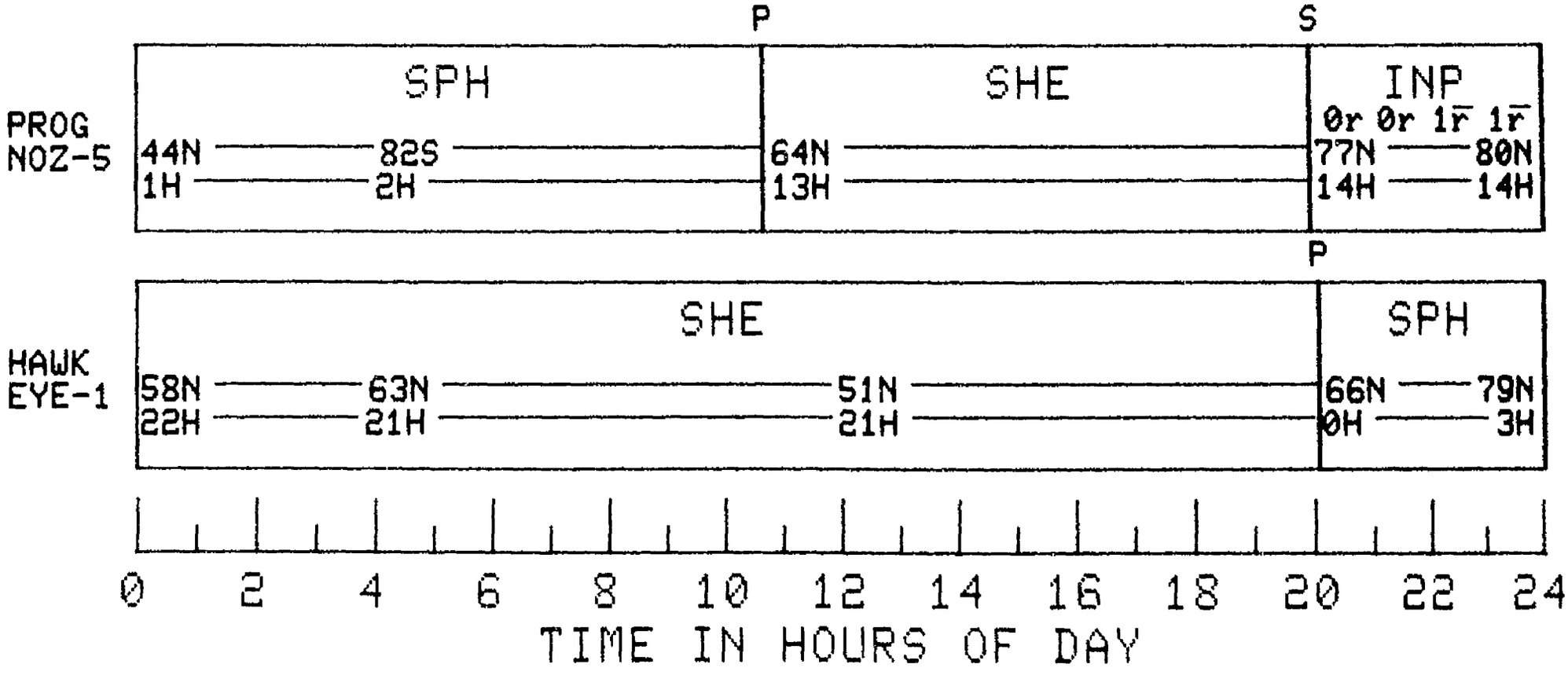

P
SHE
SPH
PROG
NOZ-5
76N
1H
72N
1H
66N
1H
44N
1H
P
SPH
SHE
HAWK
EYE-1
72N
7H
39S
21H
23N
21H
35N
22H
58N
22H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 222 1977
IMP-J
INP
SHE
S
11r̄ 8r̄ 5r̄ 1r̄ 0r 1r
38N 38N 37N 34N 33N
18H 18H 18H 19H 19H
IMP-H
INP
20r̄ 20r̄ 21r̄ 20r̄ 20r̄
12N 16N 17N 19N 20N
9H 10H 10H 11H 11H
SOL RAD -11B
SHE
SPH
TAL
P
1N 1S 12r̄ 5r̄
18H 19H 3S 5S
20H 22H
SOL RAD -11A
SHE
INP
S
2r 0r 1r 3r̄ 4r̄ 5r̄
1S 1N 3N 4N 5N
6H 7H 8H 9H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

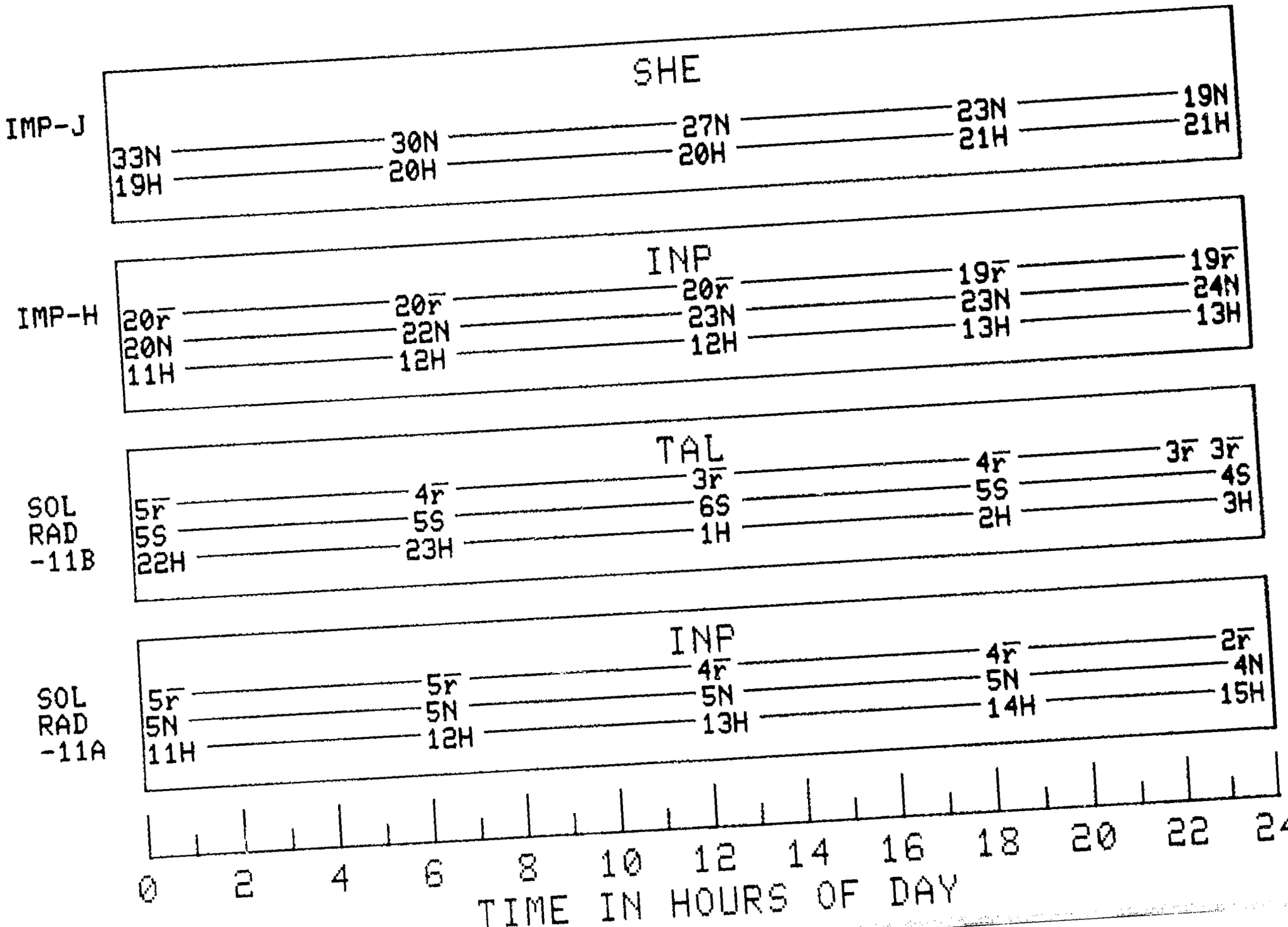
DAY 222 1977


VELA -6B
INP
SHE
S
4r 4r 3r 1r 0r
2S 14N 29N 47N 51N
11H 12H 12H 14H 15H
VELA -6A
P
S
SHE
INP
52S 53S 44S
4H 5H 8H
0r 1r 3r
42S 17S
8H 10H
VELA -5B
P
S
TAL
SPH
SHE
INP
15r 14r
43S 47S
2H 2H
53S 48S
4H 7H
0r 0r
37S
8H
VELA -5A
P
SHE
SPH
TAL
53N 45N
17H 19H
1r 1r 1r 1r 1r 1r 0r 0r 0r 1r 1r
32N 6N
21H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

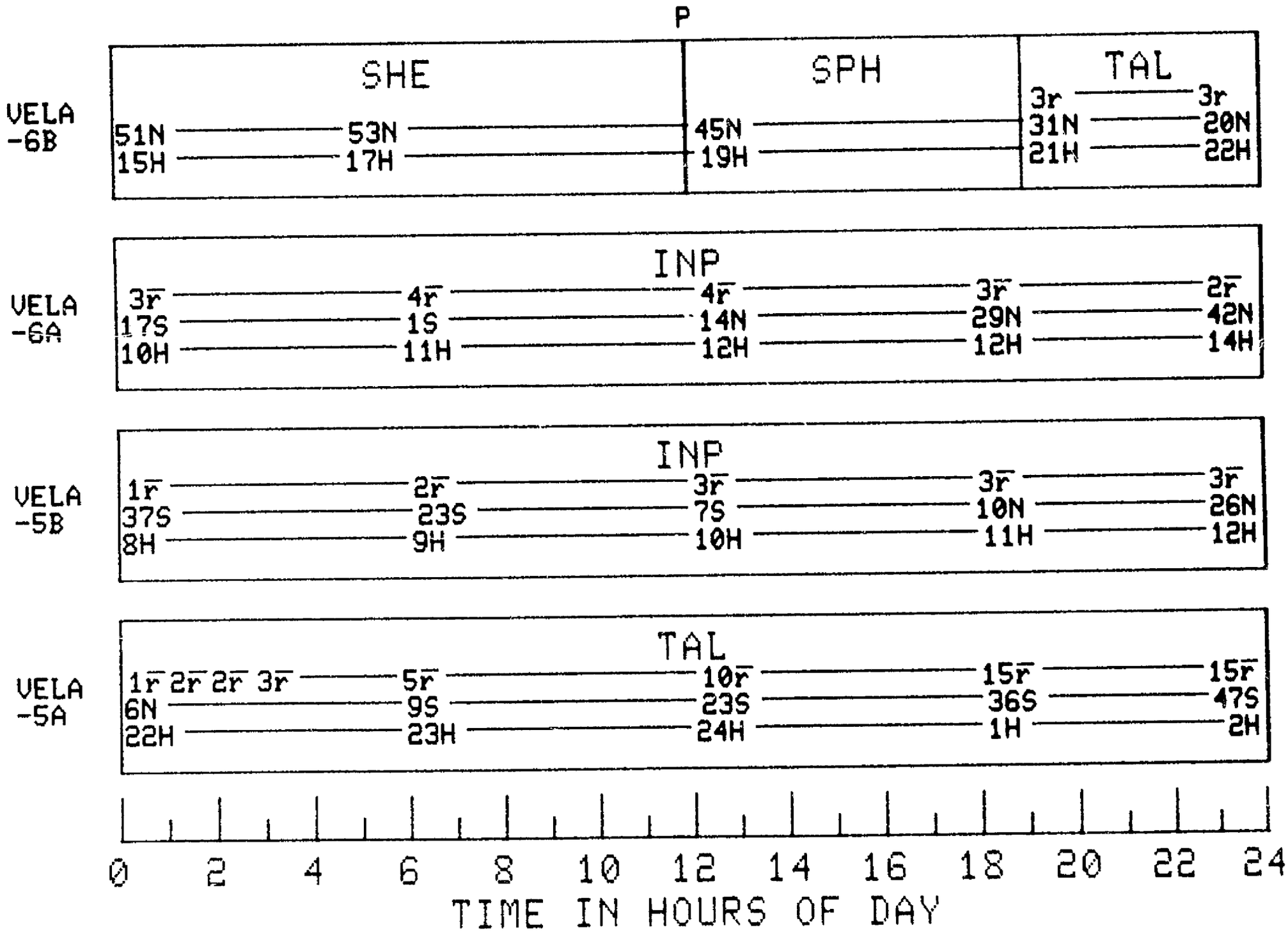
DAY 222 1977


P
S
SPH
SHE
INP
0r 0r 1r̄ 1r̄
PROG
NOZ-5
44N
82S
64N
77N
80N
1H
2H
13H
14H
14H
P
SHE
SPH
HAWK
EYE-1
58N
63N
51N
66N
79N
22H
21H
21H
0H
3H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

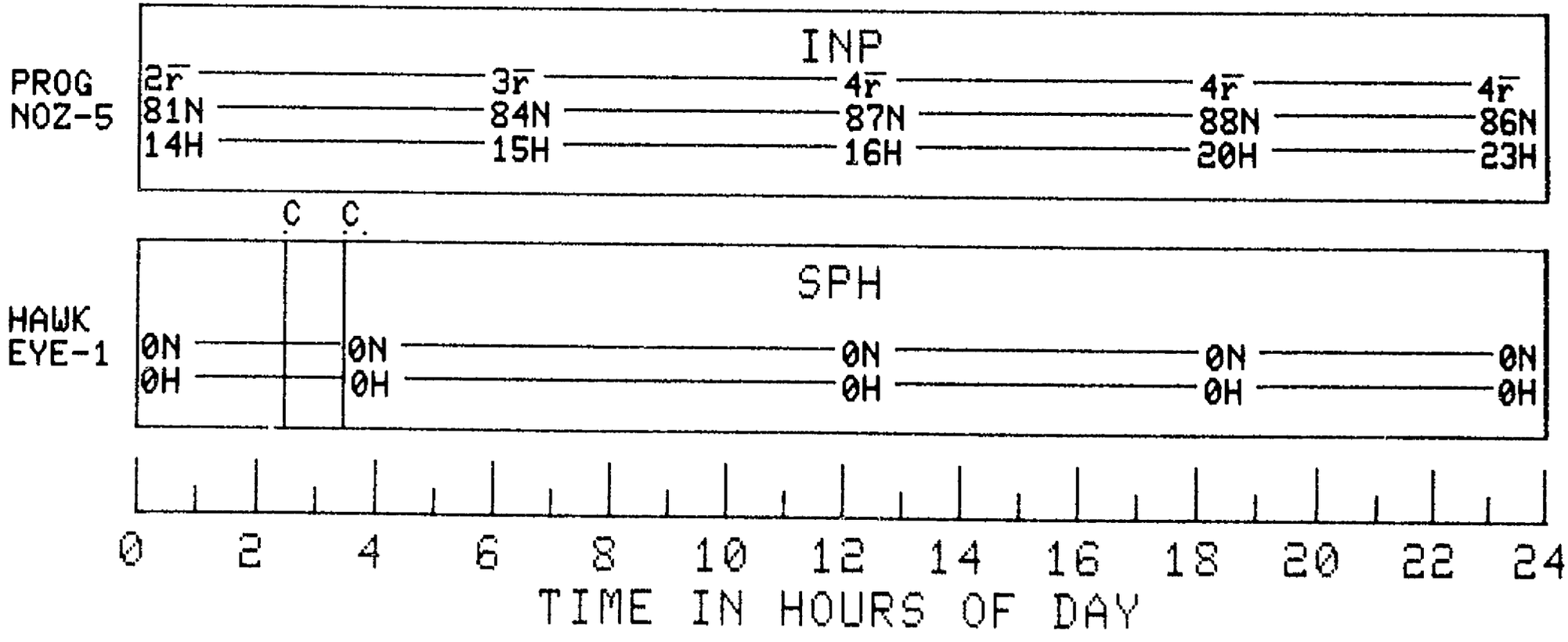
DAY 223 1977


SHE
IMP-J
33N
19H
30N
20H
27N
20H
23N
21H
19N
21H
INP
IMP-H
20r
20N
11H
20r
22N
12H
20r
23N
12H
19r
23N
13H
19r
24N
13H
TAL
SOL
RAD
-11B
5r
5S
22H
4r
5S
23H
3r
6S
1H
4r
5S
2H
3r 3r
4S
3H
INP
SOL
RAD
-11A
5r
5N
11H
5r
5N
12H
4r
5N
13H
4r
5N
14H
2r
4N
15H
0 2 4 6 8 10 12 14 16 18 20 22
TIME IN HOURS OF DAY

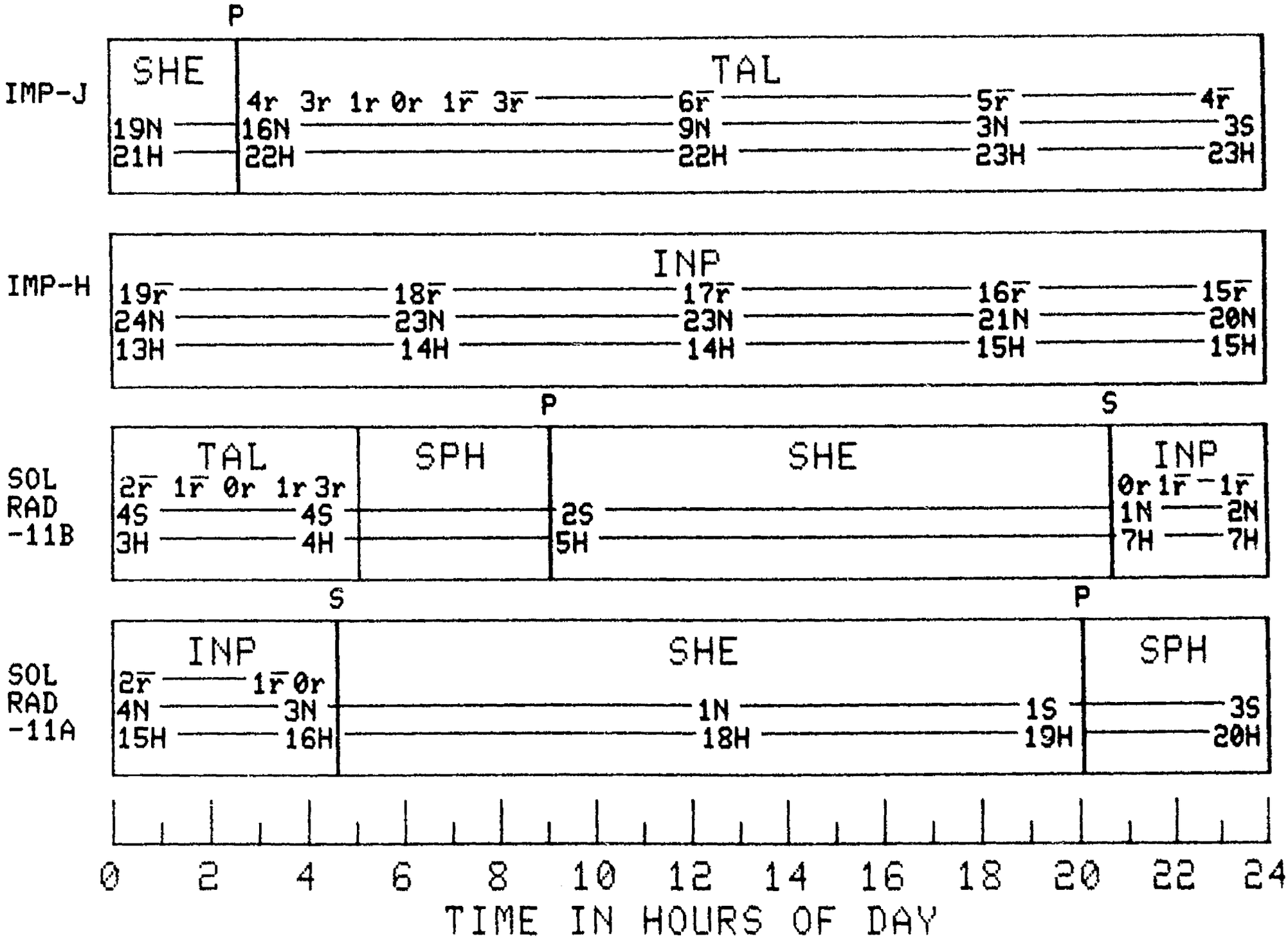
DAY 223 1977


P
VELA -6B
SHE
SPH
TAL
51N 53N 45N 3r 3r
15H 17H 19H 31N 20N
21H 22H
VELA -6A
INP
3r 4r 4r 3r 2r
17S 1S 14N 29N 42N
10H 11H 12H 12H 14H
VELA -5B
INP
1r 2r 3r 3r 3r
37S 23S 7S 10N 26N
8H 9H 10H 11H 12H
VELA -5A
TAL
1r 2r 2r 3r 5r 10r 15r 15r
6N 9S 23S 36S 47S
22H 23H 24H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

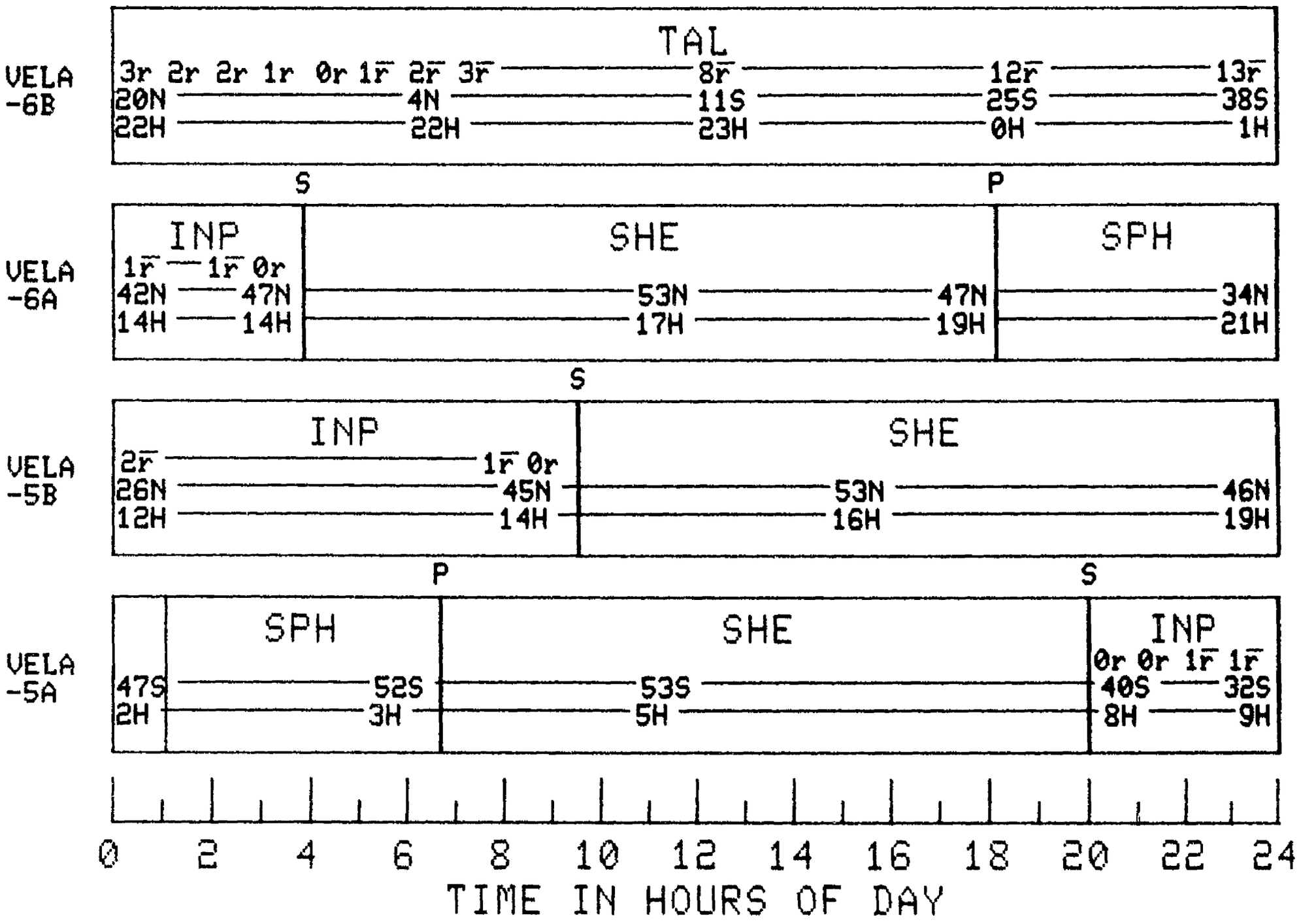
DAY 223 1977


INP
PROG
NOZ-5
2r̄
81N
14H
3r̄
84N
15H
4r̄
87N
16H
4r̄
88N
20H
4r̄
86N
23H
C
C
SPH
HAWK
EYE-1
0N
0H
0N
0H
0N
0H
0N
0H
0N
0H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

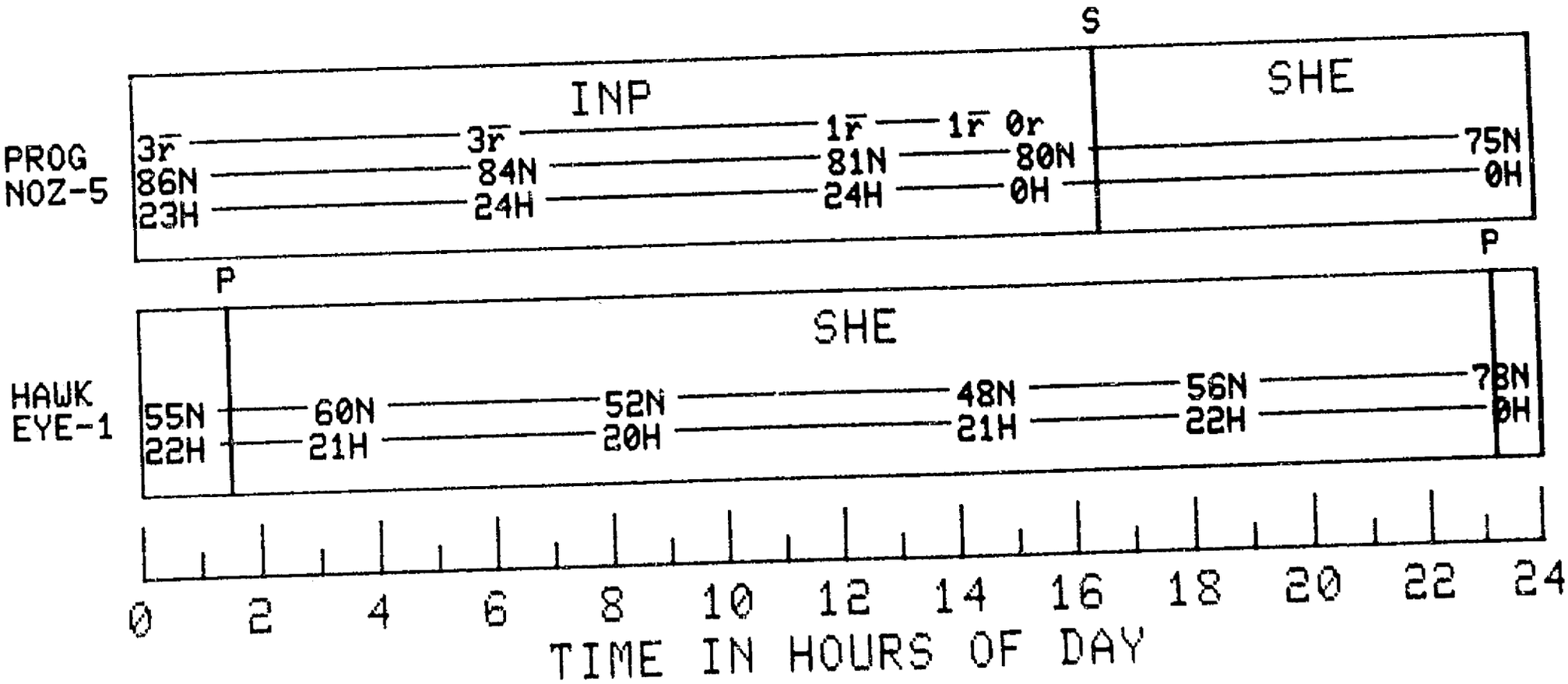
DAY 224 1977


P
IMP-J
SHE
19N
21H
TAL
4r 3r 1r 0r 1r̄ 3r̄
16N
22H
6r̄
9N
22H
5r̄
3N
23H
4r̄
3S
23H
IMP-H
INP
19r̄
24N
13H
18r̄
23N
14H
17r̄
23N
14H
16r̄
21N
15H
15r̄
20N
15H
P
S
SOL
RAD
-11B
TAL
2r̄ 1r̄ 0r 1r 3r
4S
3H
4S
4H
SPH
2S
5H
SHE
INP
0r 1r̄ 1r̄
1N
7H
2N
7H
S
P
SOL
RAD
-11A
INP
2r̄
4N
15H
1r̄ 0r
3N
16H
SHE
1N
18H
1S
19H
SPH
3S
20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

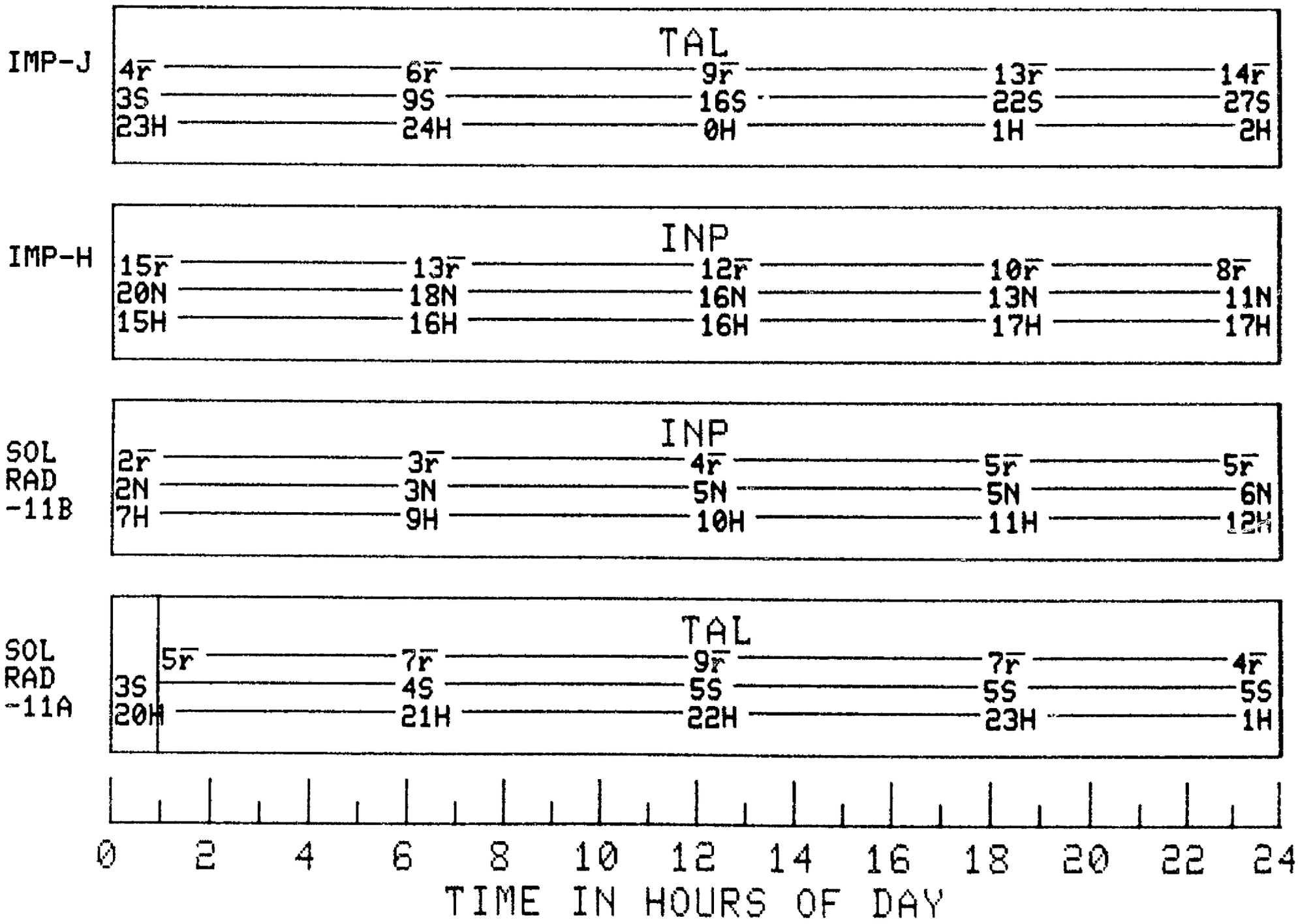
DAY 224 1977

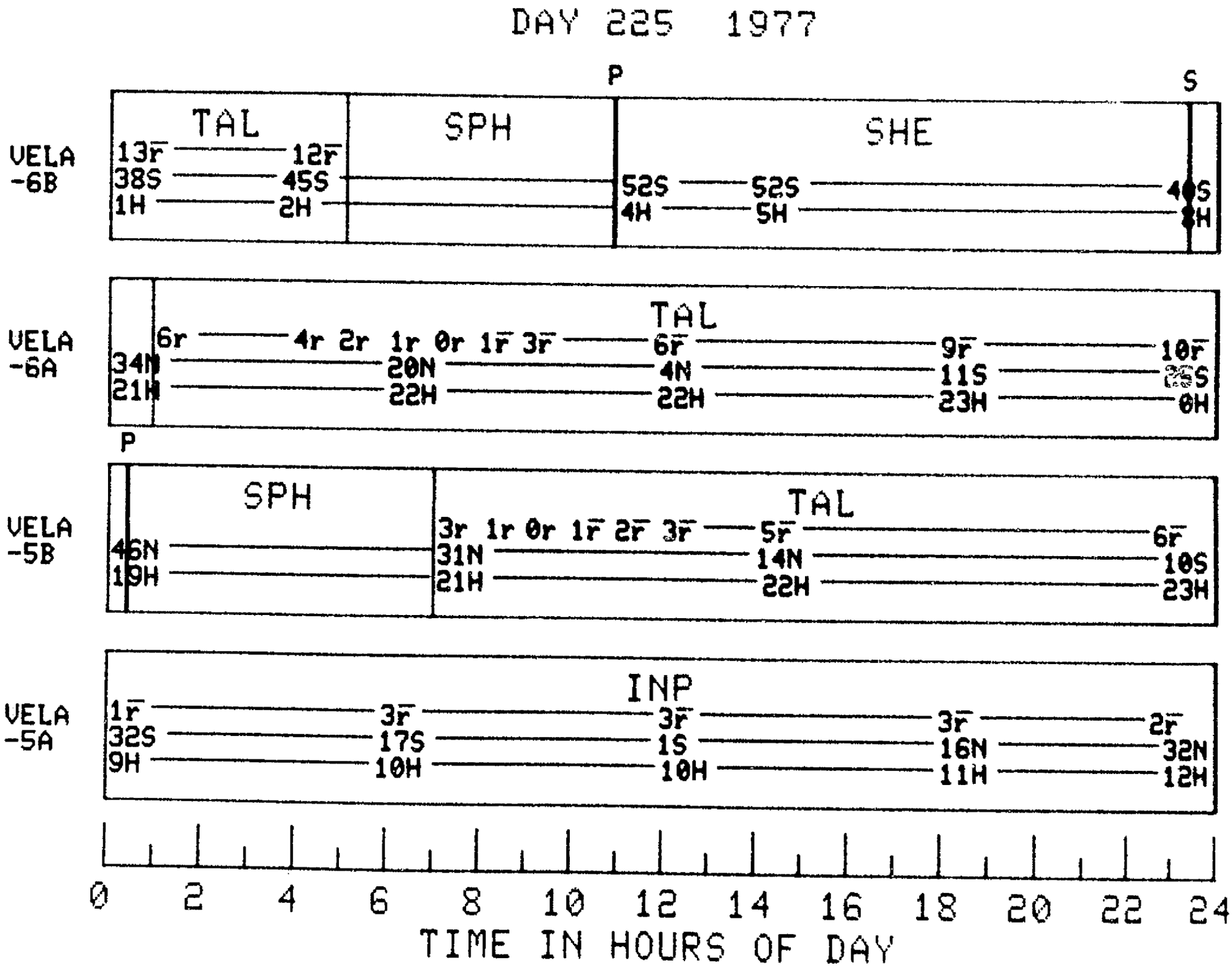

VELA -6B
TAL
3r 2r 2r 1r 0r 1r 2r 3r 8r 12r 13r
20N 4N 11S 25S 38S
22H 22H 23H 0H 1H
S
P
VELA -6A
INP
SHE
SPH
1r 1r 0r
42N 47N 53N 47N 34N
14H 14H 17H 19H 21H
S
VELA -5B
INP
SHE
2r 1r 0r
26N 45N 53N 46N
12H 14H 16H 19H
P
S
VELA -5A
SPH
SHE
INP
0r 0r 1r 1r
47S 52S 53S 40S 32S
2H 3H 5H 8H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 224 1977

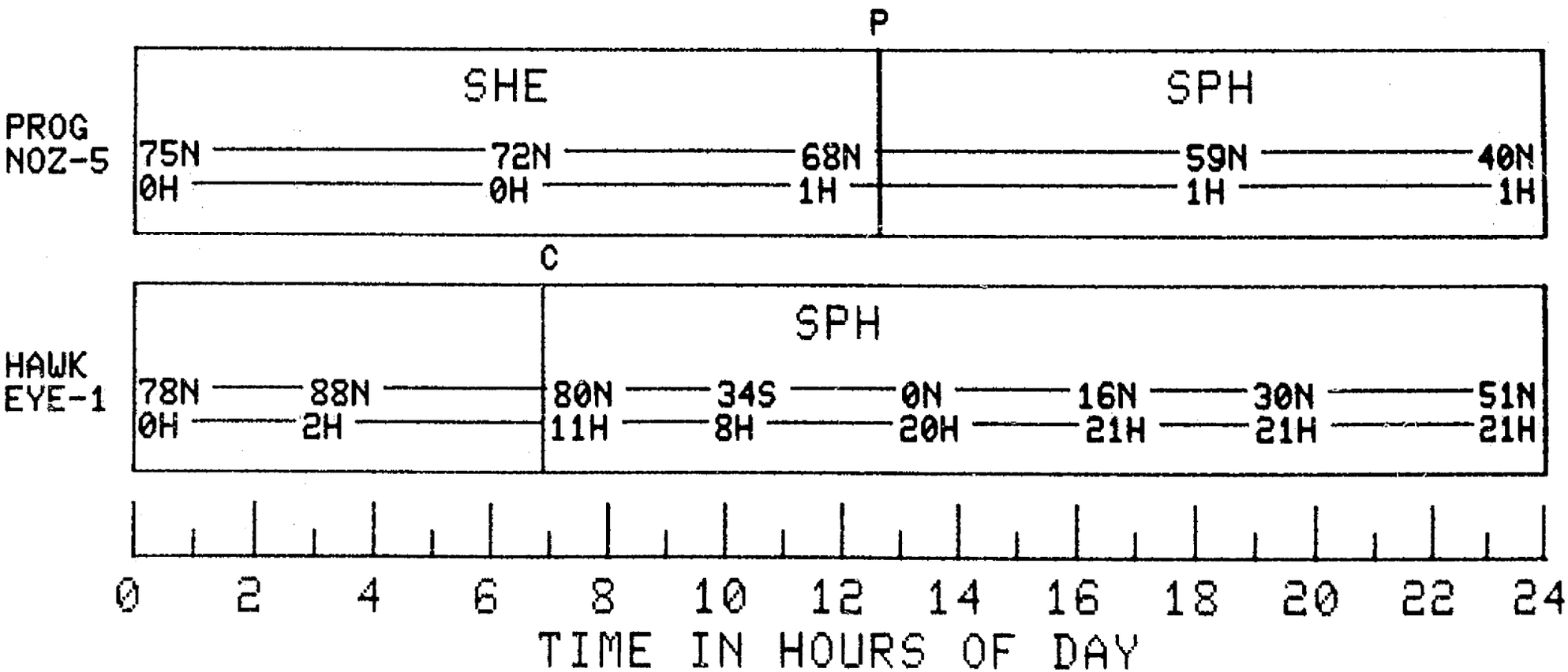

S
INP
SHE
PROG
NOZ-5
3r̄
86N
23H
3r̄
84N
24H
1r̄
81N
24H
1r̄ 0r
80N
0H
75N
0H
P
P
SHE
HAWK
EYE-1
55N
22H
60N
21H
52N
20H
48N
21H
56N
22H
78N
0H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

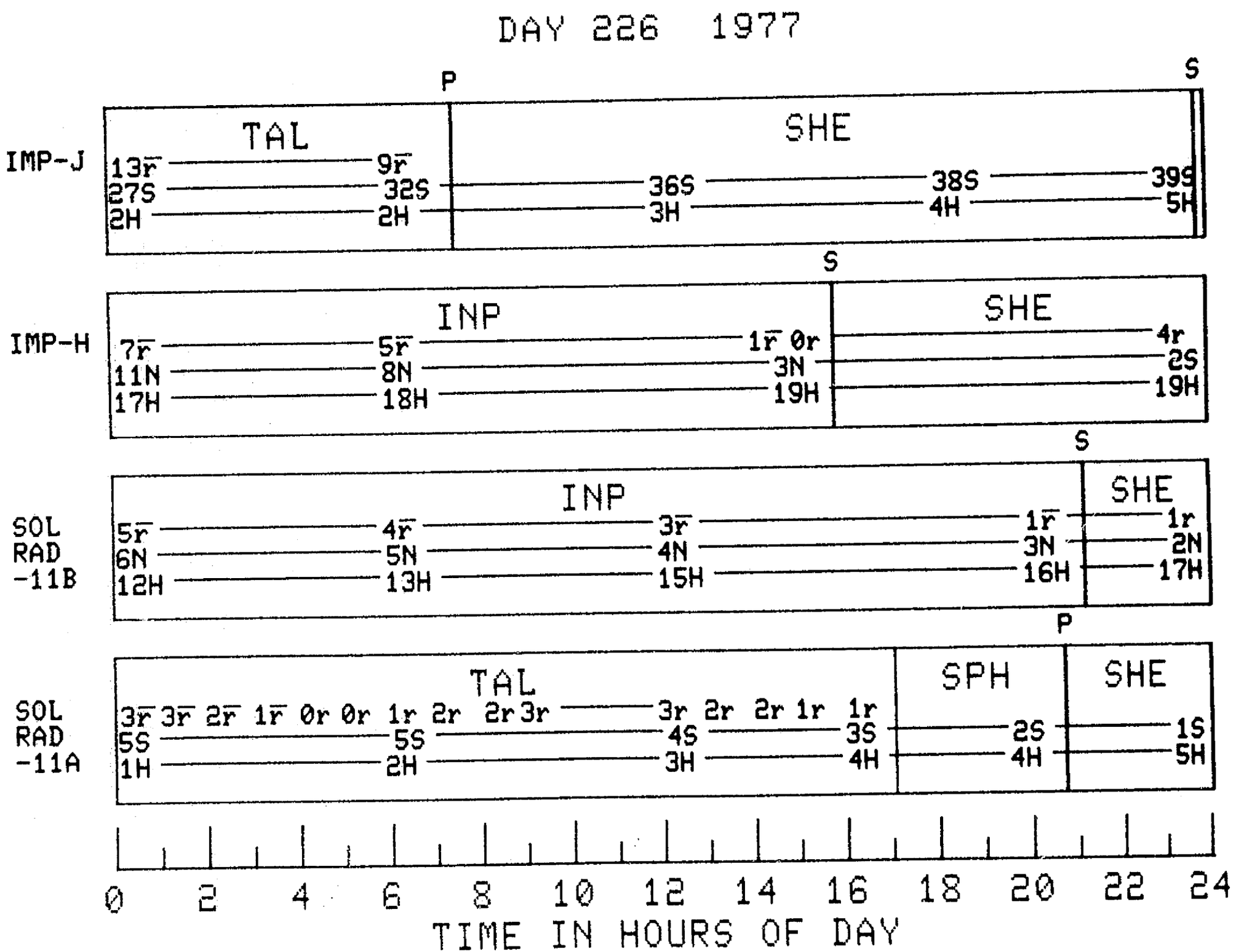
DAY 225 1977


IMP-J
TAL
4r̄ 6r̄ 9r̄ 13r̄ 14r̄
3S 9S 16S 22S 27S
23H 24H 0H 1H 2H
IMP-H
INP
15r̄ 13r̄ 12r̄ 10r̄ 8r̄
20N 18N 16N 13N 11N
15H 16H 16H 17H 17H
SOL RAD -11B
INP
2r̄ 3r̄ 4r̄ 5r̄ 5r̄
2N 3N 5N 5N 6N
7H 9H 10H 11H 12H
SOL RAD -11A
TAL
5r̄ 7r̄ 9r̄ 7r̄ 4r̄
3S 4S 5S 5S 5S
20H 21H 22H 23H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

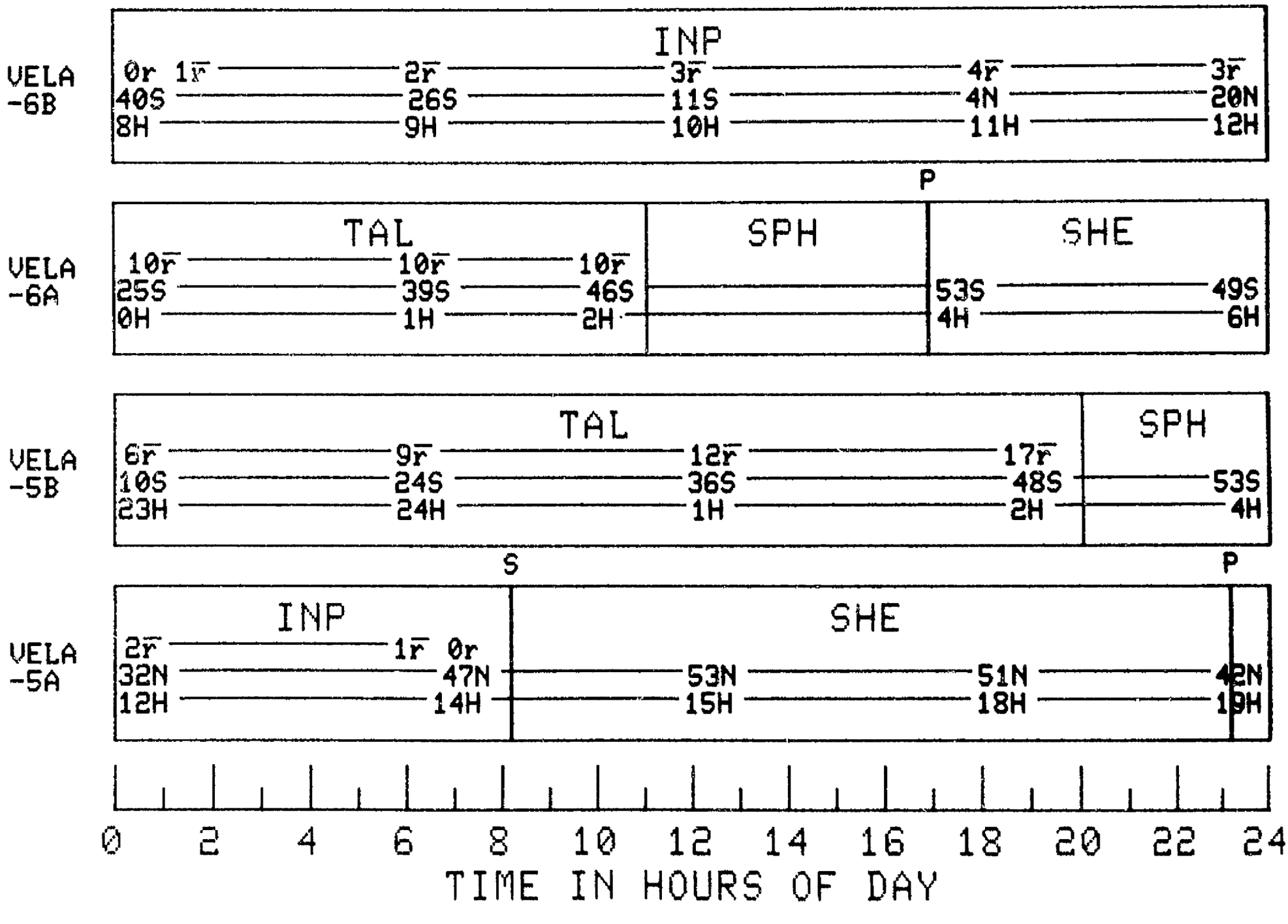

DAY 225 1977
P
S
VELA -6B
TAL
SPH
SHE
13r 12r
38S 45S
1H 2H
52S 52S 40S
4H 5H 3H
VELA -6A
TAL
6r 4r 2r 1r 0r 1r 3r 6r 9r 10r
34N 20N 4N 11S 25S
21H 22H 22H 23H 0H
P
VELA -5B
SPH
TAL
46N 3r 1r 0r 1r 2r 3r 5r 6r
19H 31N 14N 10S
21H 22H 23H
VELA -5A
INP
1r 3r 3r 3r 2r
32S 17S 1S 16N 32N
9H 10H 10H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 225 1977

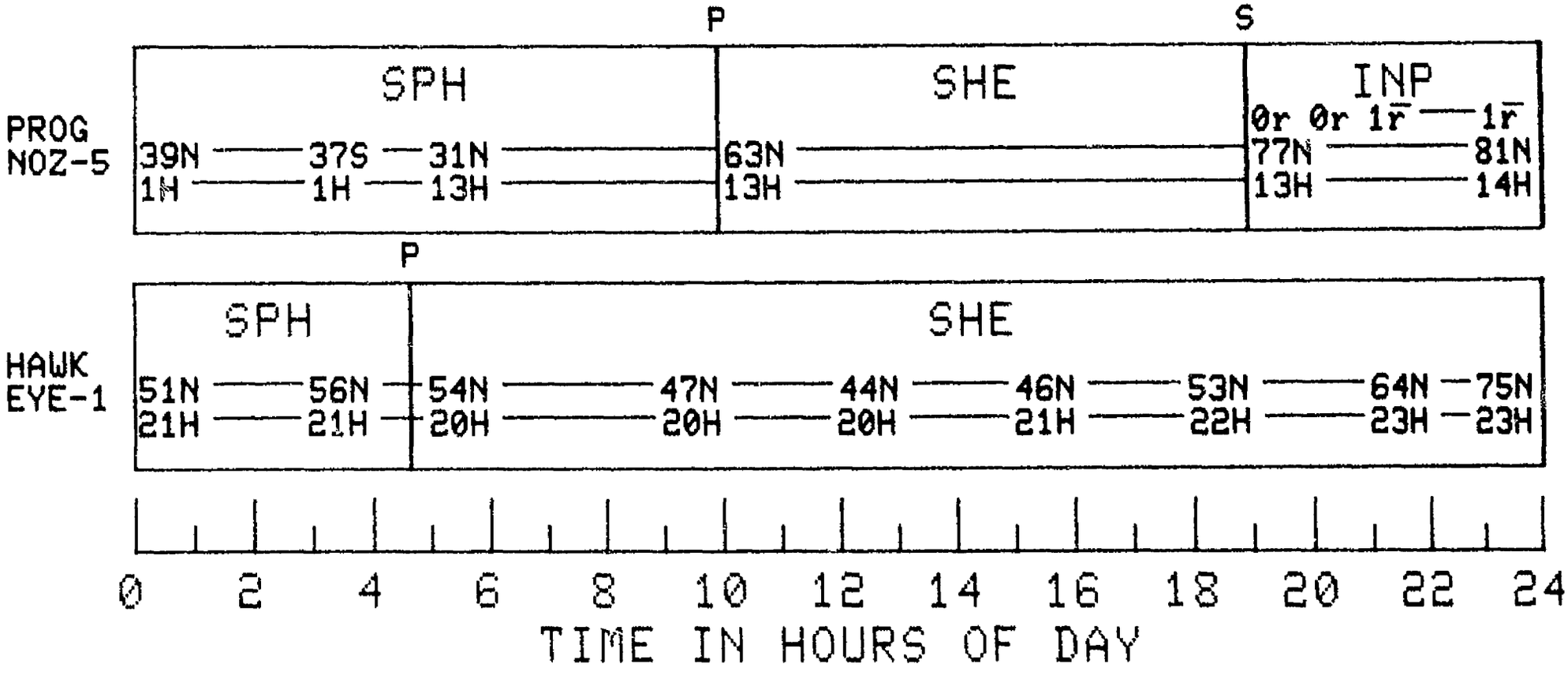

P
SHE
SPH
PROG
NOZ-5
75N
0H
72N
0H
68N
1H
59N
1H
40N
1H
C
SPH
HAWK
EYE-1
78N
0H
88N
2H
80N
11H
34S
8H
0N
20H
16N
21H
30N
21H
51N
21H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 226 1977
IMP-J
P
S
TAL
SHE
13r̄
9r̄
27S
32S
36S
38S
39S
2H
2H
3H
4H
5H
IMP-H
S
INP
SHE
7r̄
5r̄
1r̄ 0r
4r
11N
8N
3N
2S
17H
18H
19H
19H
SOL
RAD
-11B
S
INP
SHE
5r̄
4r̄
3r̄
1r̄
1r
6N
5N
4N
3N
2N
12H
13H
15H
16H
17H
SOL
RAD
-11A
P
TAL
SPH
SHE
3r̄ 3r̄ 2r̄ 1r̄ 0r 0r 1r 2r 2r 3r
3r 2r 2r 1r 1r
5S
5S
4S
3S
2S
1S
1H
2H
3H
4H
4H
5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

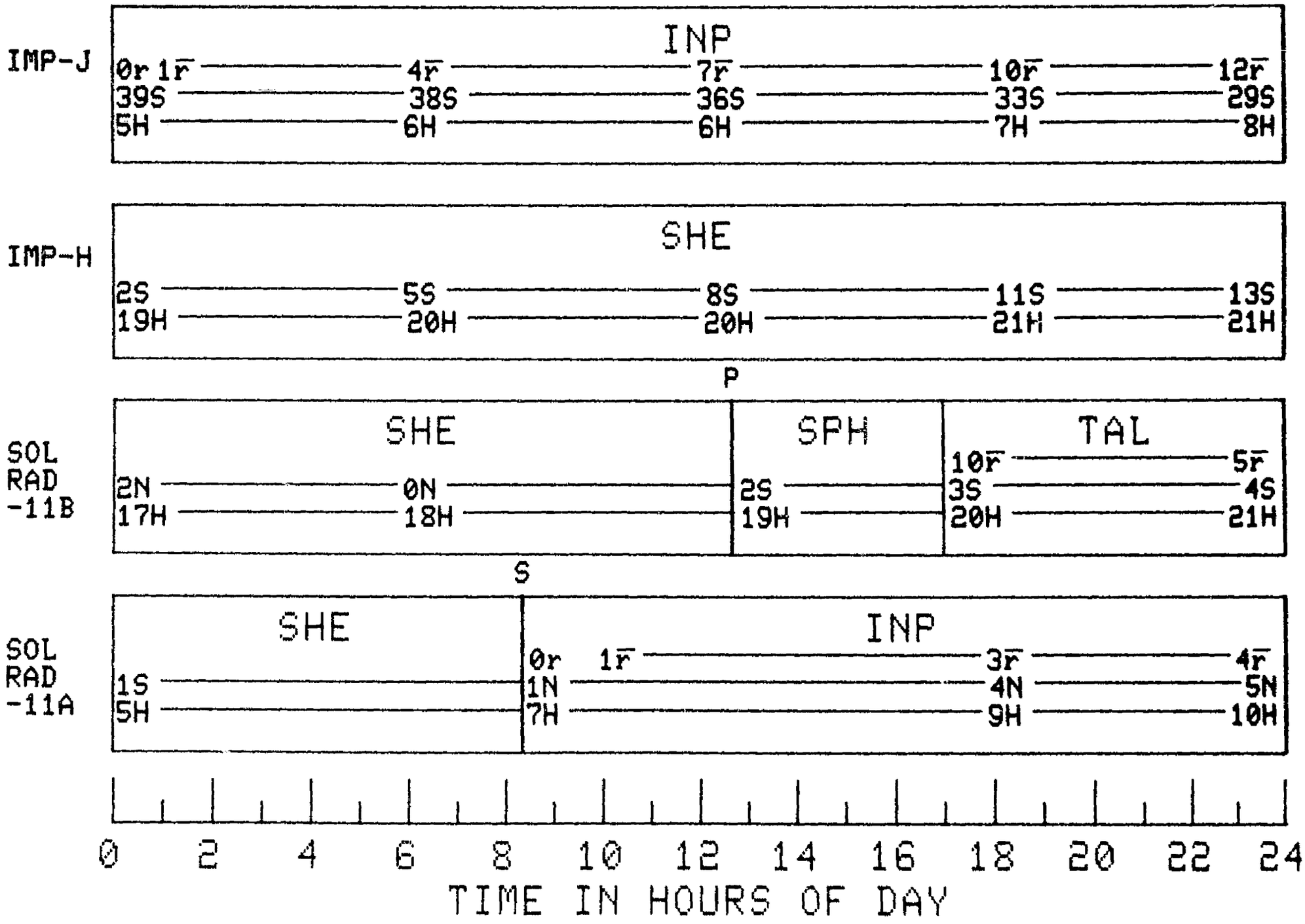
DAY 226 1977

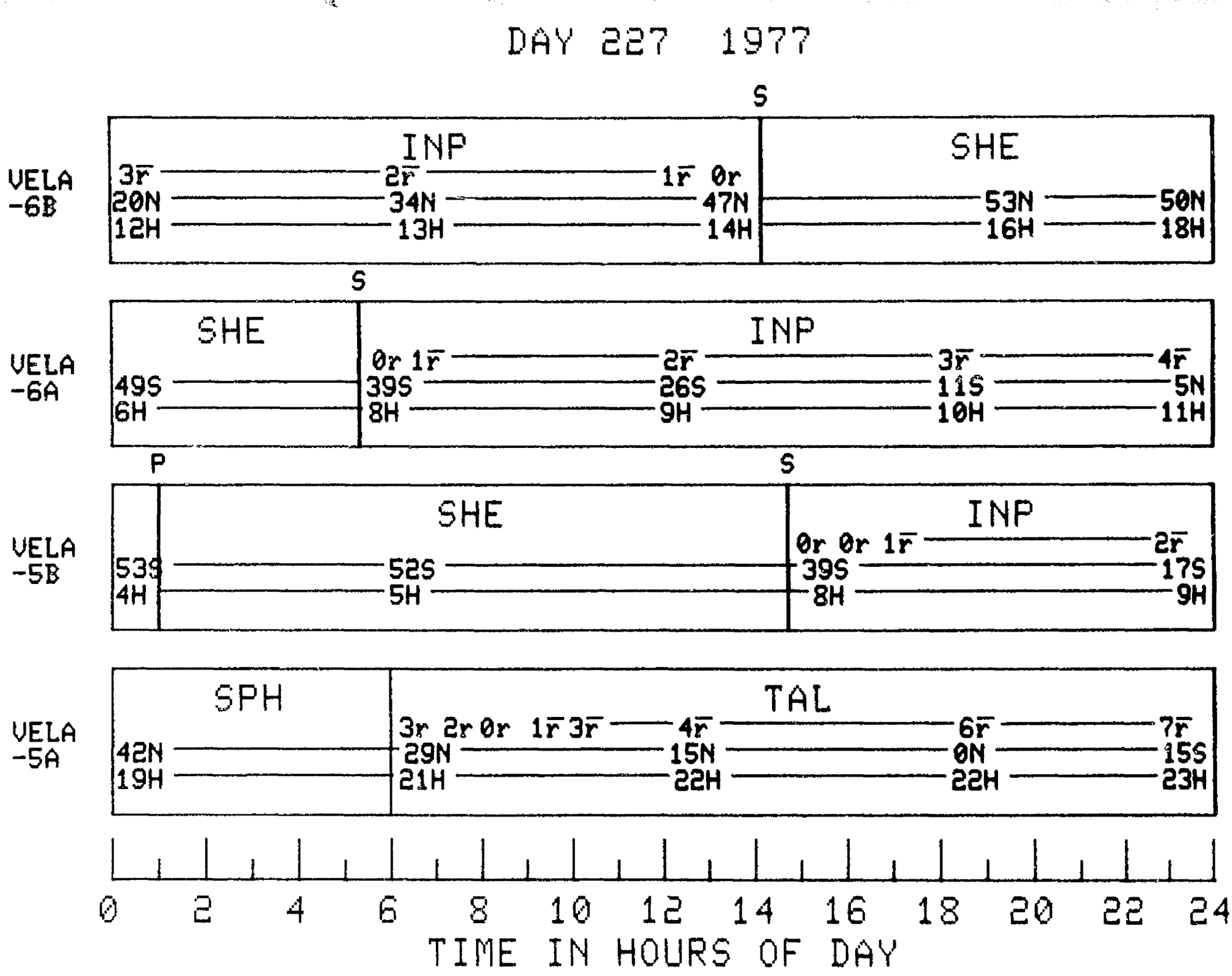

VELA -6B
INP
0r 1r 2r 3r 4r 3r
40S 26S 11S 4N 20N
8H 9H 10H 11H 12H
P
VELA -6A
TAL
SPH
SHE
10r 10r 10r
25S 39S 46S 53S 49S
0H 1H 2H 4H 6H
VELA -5B
TAL
SPH
6r 9r 12r 17r
10S 24S 36S 48S 53S
23H 24H 1H 2H 4H
S
P
VELA -5A
INP
SHE
2r 1r 0r
32N 47N 53N 51N 42N
12H 14H 15H 18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 226 1977

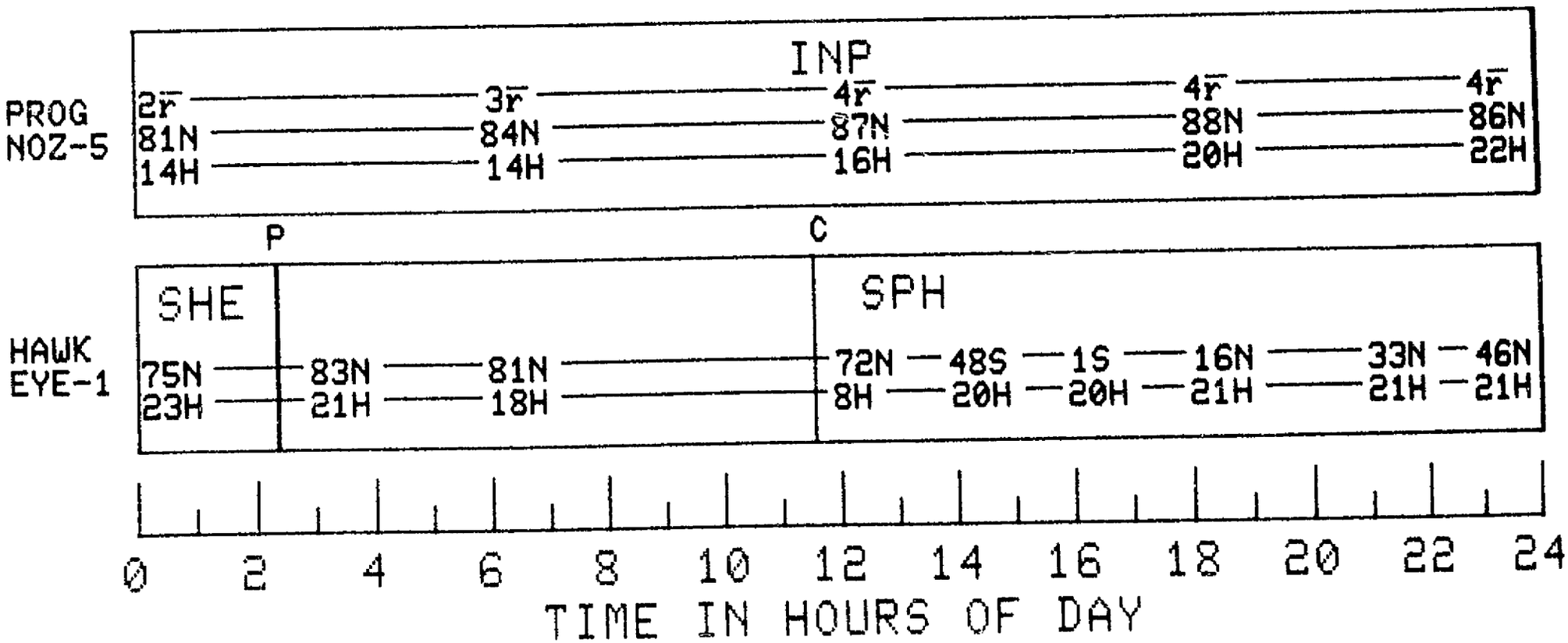

P
S
SPH
SHE
INP
PROG
NOZ-5
39N 37S 31N 63N 77N 81N
1H 1H 13H 13H 13H 14H
0r 0r 1r 1r
P
SPH
SHE
HAWK
EYE-1
51N 56N 54N 47N 44N 46N 53N 64N 75N
21H 21H 20H 20H 20H 21H 22H 23H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

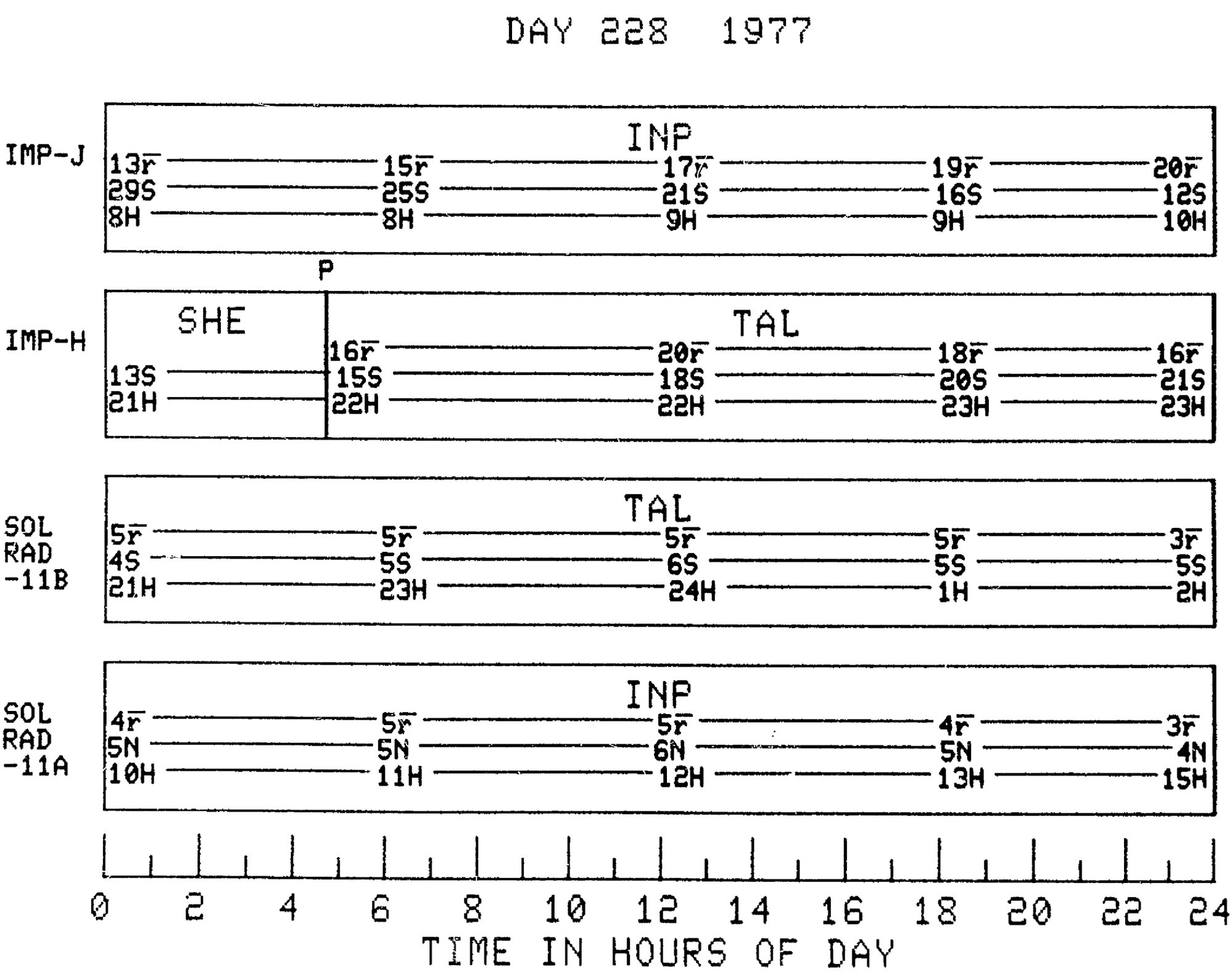
DAY 227 1977

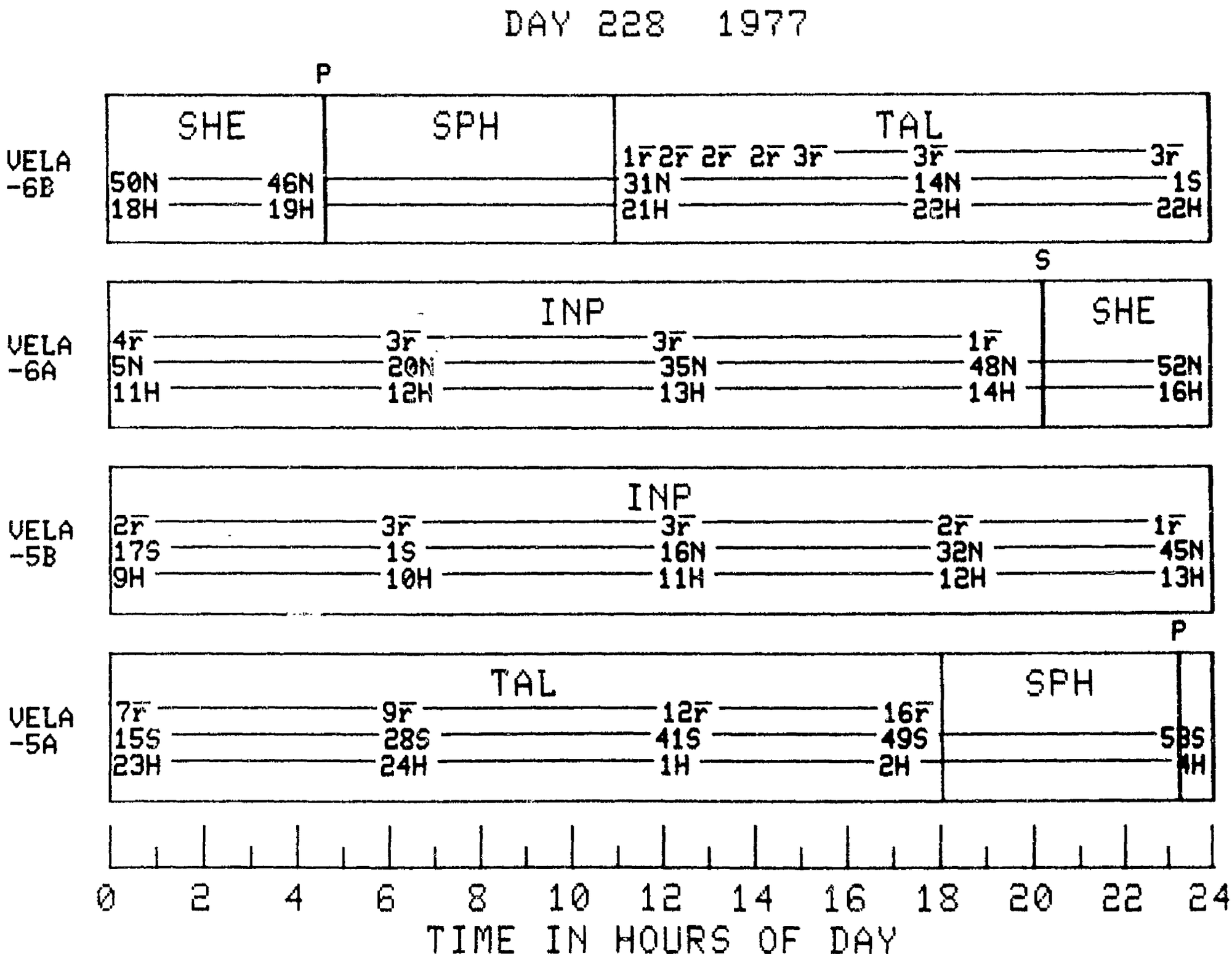

IMP-J
INP
0r 1r 4r 7r 10r 12r
39S 38S 36S 33S 29S
5H 6H 6H 7H 8H
IMP-H
SHE
2S 5S 8S 11S 13S
19H 20H 20H 21H 21H
P
SOL RAD -11B
SHE
SPH
TAL
2N 0N
17H 18H
2S
19H
10r 5r
3S 4S
20H 21H
S
SOL RAD -11A
SHE
INP
1S
5H
0r 1r 3r 4r
1N 4N 5N
7H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 227 1977
VELA -6B
S
INP
SHE
3r 2r 1r 0r
20N 34N 47N 53N 50N
12H 13H 14H 16H 18H
VELA -6A
S
SHE
INP
0r 1r 2r 3r 4r
49S 39S 26S 11S 5N
6H 8H 9H 10H 11H
VELA -5B
P
S
SHE
INP
0r 0r 1r 2r
53S 52S 39S 17S
4H 5H 8H 9H
VELA -5A
SPH
TAL
3r 2r 0r 1r 3r 4r 6r 7r
42N 29N 15N 0N 15S
19H 21H 22H 22H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

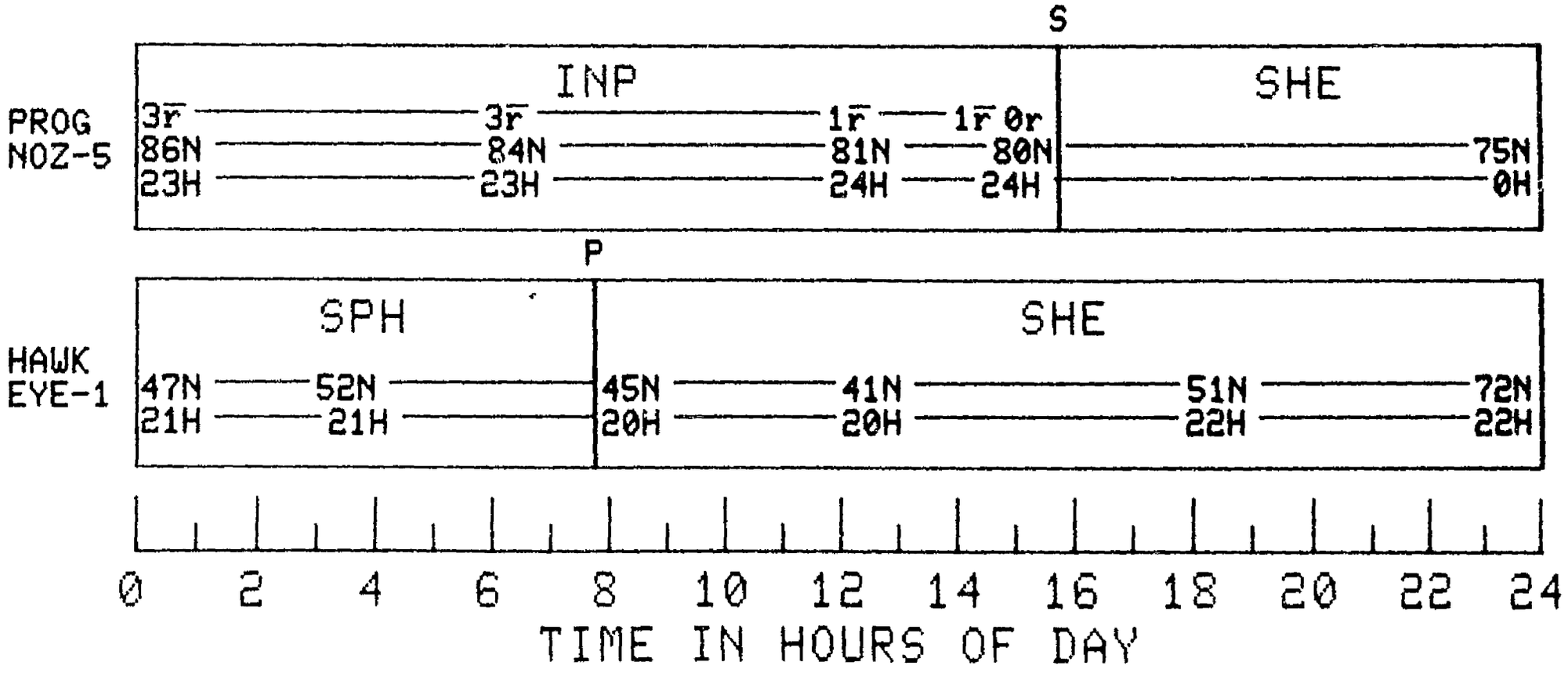
DAY 227 1977


INP
PROG
NOZ-5
2r̄
81N
14H
3r̄
84N
14H
4r̄
87N
16H
4r̄
88N
20H
4r̄
86N
22H
P
C
SHE
SPH
HAWK
EYE-1
75N
23H
83N
21H
81N
18H
72N
8H
48S
20H
1S
20H
16N
21H
33N
21H
46N
21H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

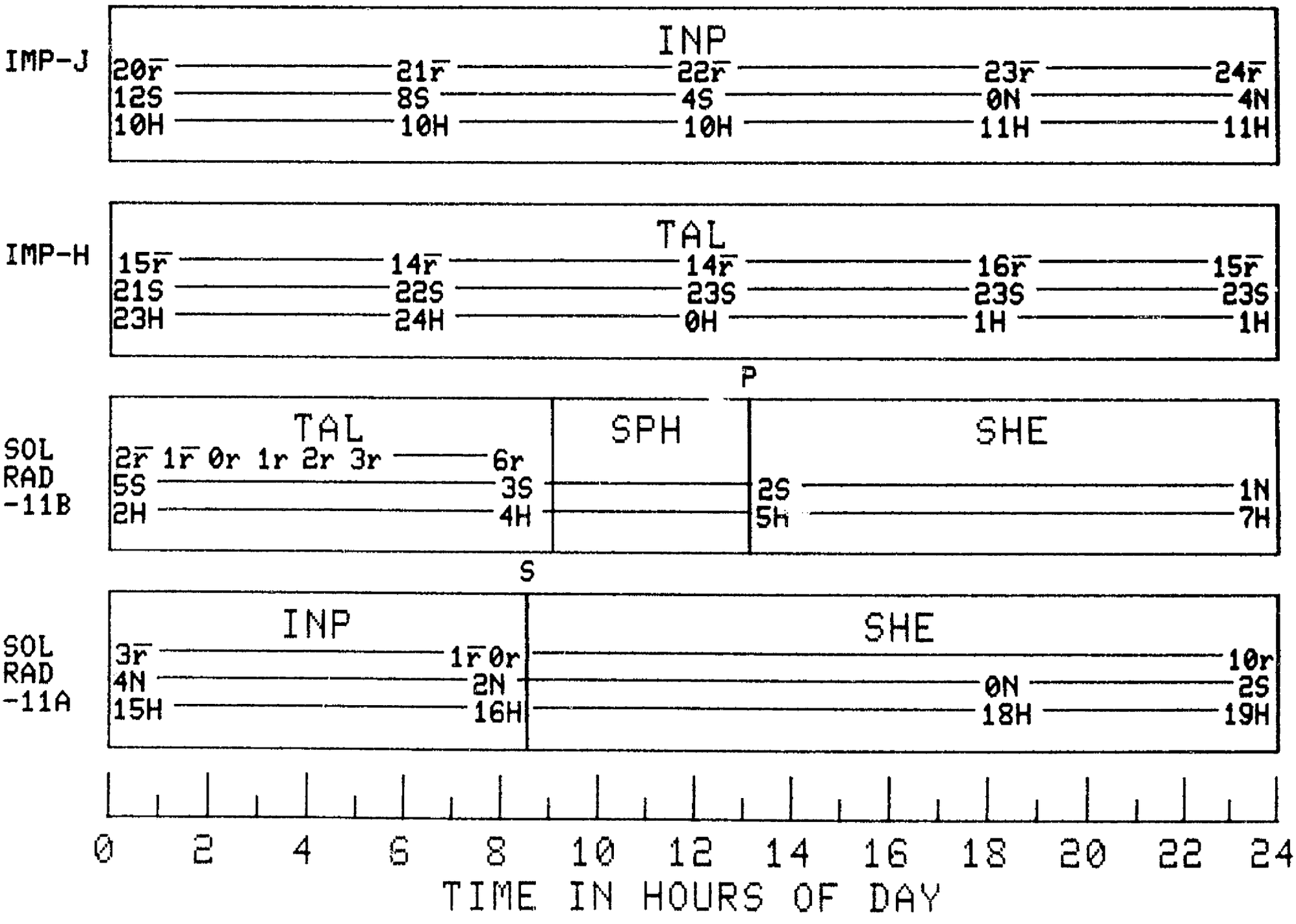

DAY 228 1977
IMP-J
INP
13r 15r 17r 19r 20r
29S 25S 21S 16S 12S
8H 8H 9H 9H 10H
P
IMP-H
SHE
13S
21H
TAL
16r 20r 18r 16r
15S 18S 20S 21S
22H 22H 23H 23H
SOL RAD -11B
TAL
5r 5r 5r 5r 3r
4S 5S 6S 5S 5S
21H 23H 24H 1H 2H
SOL RAD -11A
INP
4r 5r 5r 4r 3r
5N 5N 6N 5N 4N
10H 11H 12H 13H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 228 1977
P
SHE
SPH
TAL
VELA -6B
50N 46N
18H 19H
1r 2r 2r 2r 3r 3r 3r
31N 14N 1S
21H 22H 22H
S
INP
SHE
VELA -6A
4r 3r 3r 1r
5N 20N 35N 48N 52N
11H 12H 13H 14H 16H
INP
VELA -5B
2r 3r 3r 2r 1r
17S 1S 16N 32N 45N
9H 10H 11H 12H 13H
P
TAL
SPH
VELA -5A
7r 9r 12r 16r
15S 28S 41S 49S 5?S
23H 24H 1H 2H ?H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

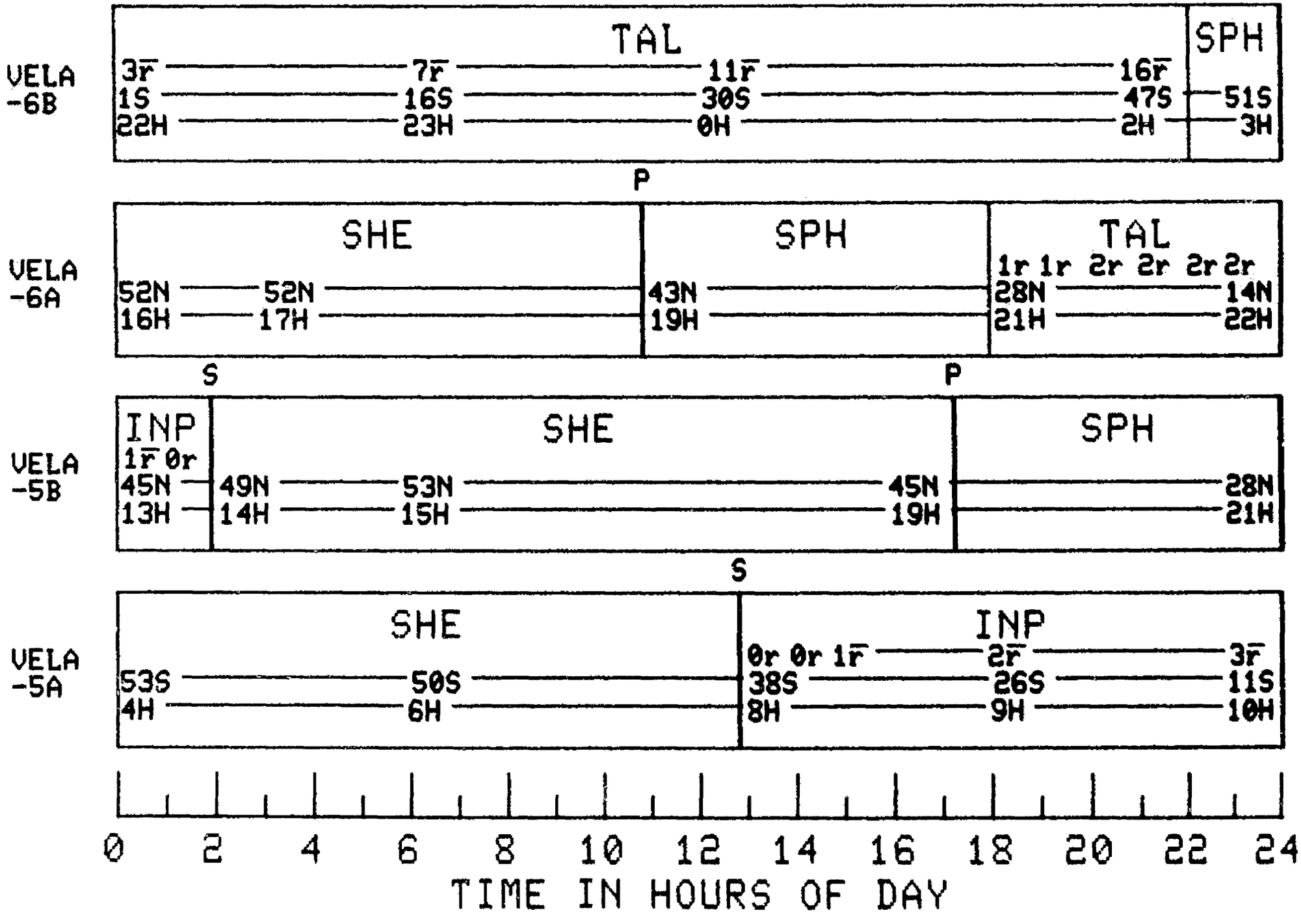
DAY 228 1977


S
INP
SHE
PROG
NOZ-5
3r 3r 1r 1r 0r
86N 84N 81N 80N 75N
23H 23H 24H 24H 0H
P
SPH
SHE
HAWK
EYE-1
47N 52N 45N 41N 51N 72N
21H 21H 20H 20H 22H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

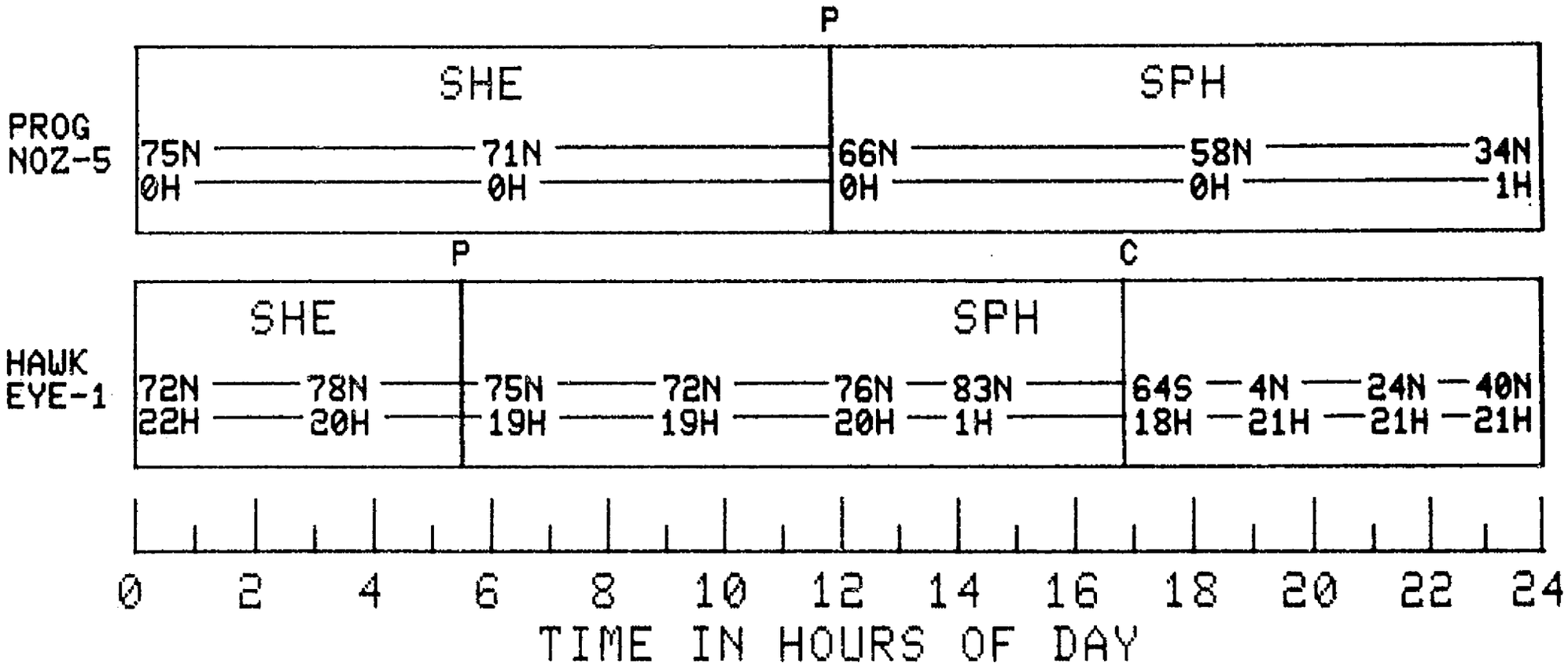
DAY 229 1977


IMP-J
INP
20r̄ 21r̄ 22r̄ 23r̄ 24r̄
12S 8S 4S 0N 4N
10H 10H 10H 11H 11H
IMP-H
TAL
15r̄ 14r̄ 14r̄ 16r̄ 15r̄
21S 22S 23S 23S 23S
23H 24H 0H 1H 1H
P
SOL RAD -11B
TAL
SPH
SHE
2r̄ 1r̄ 0r 1r 2r 3r 6r
5S 3S
2H 4H
2S 1N
5H 7H
S
SOL RAD -11A
INP
SHE
3r̄ 1r̄ 0r 10r
4N 2N 0N 2S
15H 16H 18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

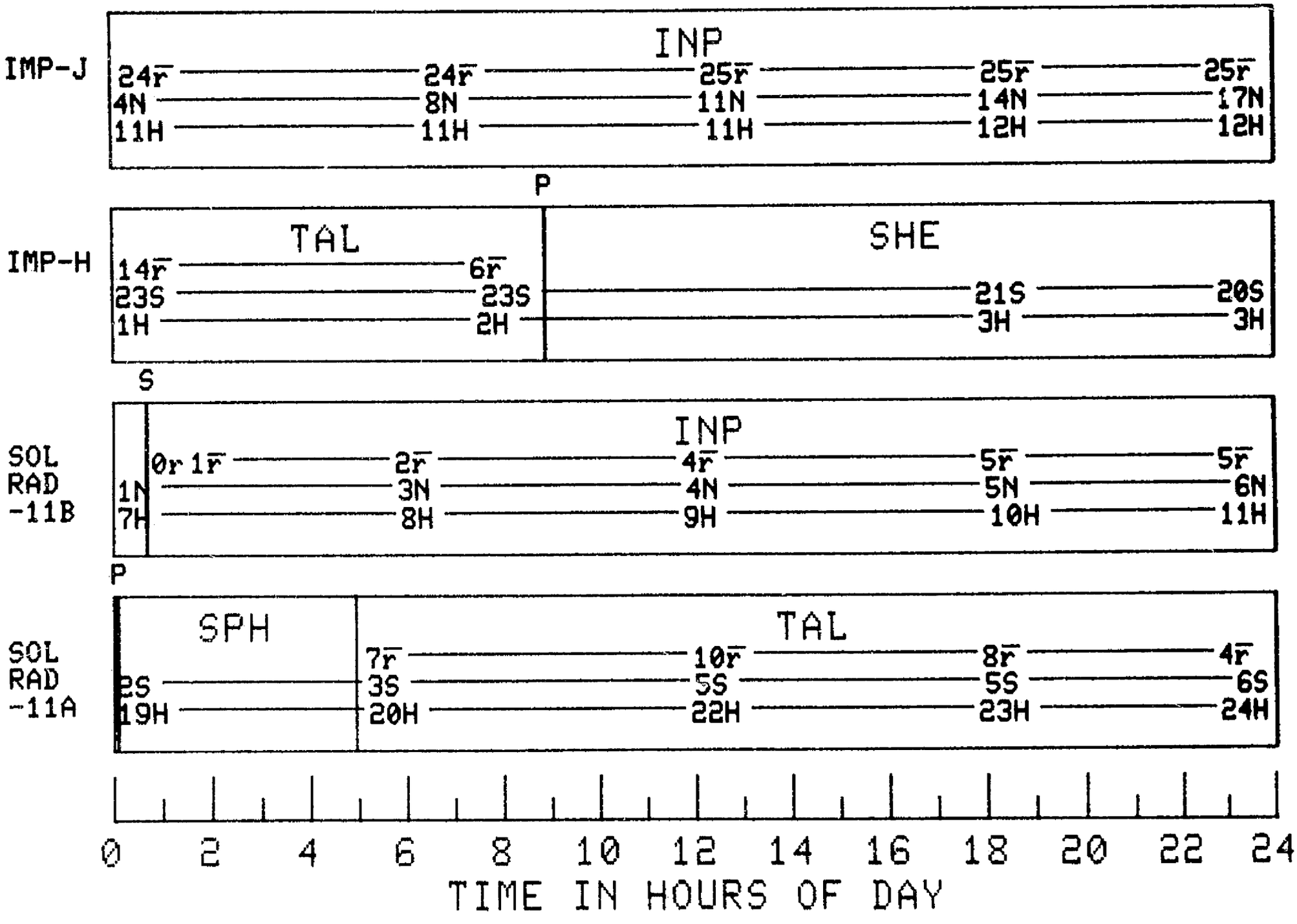
DAY 229 1977


VELA -6B
TAL
SPH
3r̄ 7r̄ 11r̄ 16r̄
1S 16S 30S 47S 51S
22H 23H 0H 2H 3H
P
VELA -6A
SHE
SPH
TAL
1r 1r 2r 2r 2r 2r
52N 52N 43N 28N 14N
16H 17H 19H 21H 22H
S
P
VELA -5B
INP
SHE
SPH
1r̄ 0r
45N 49N 53N 45N 28N
13H 14H 15H 19H 21H
S
VELA -5A
SHE
INP
0r 0r 1r̄ 2r̄ 3r̄
53S 50S 38S 26S 11S
4H 6H 8H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

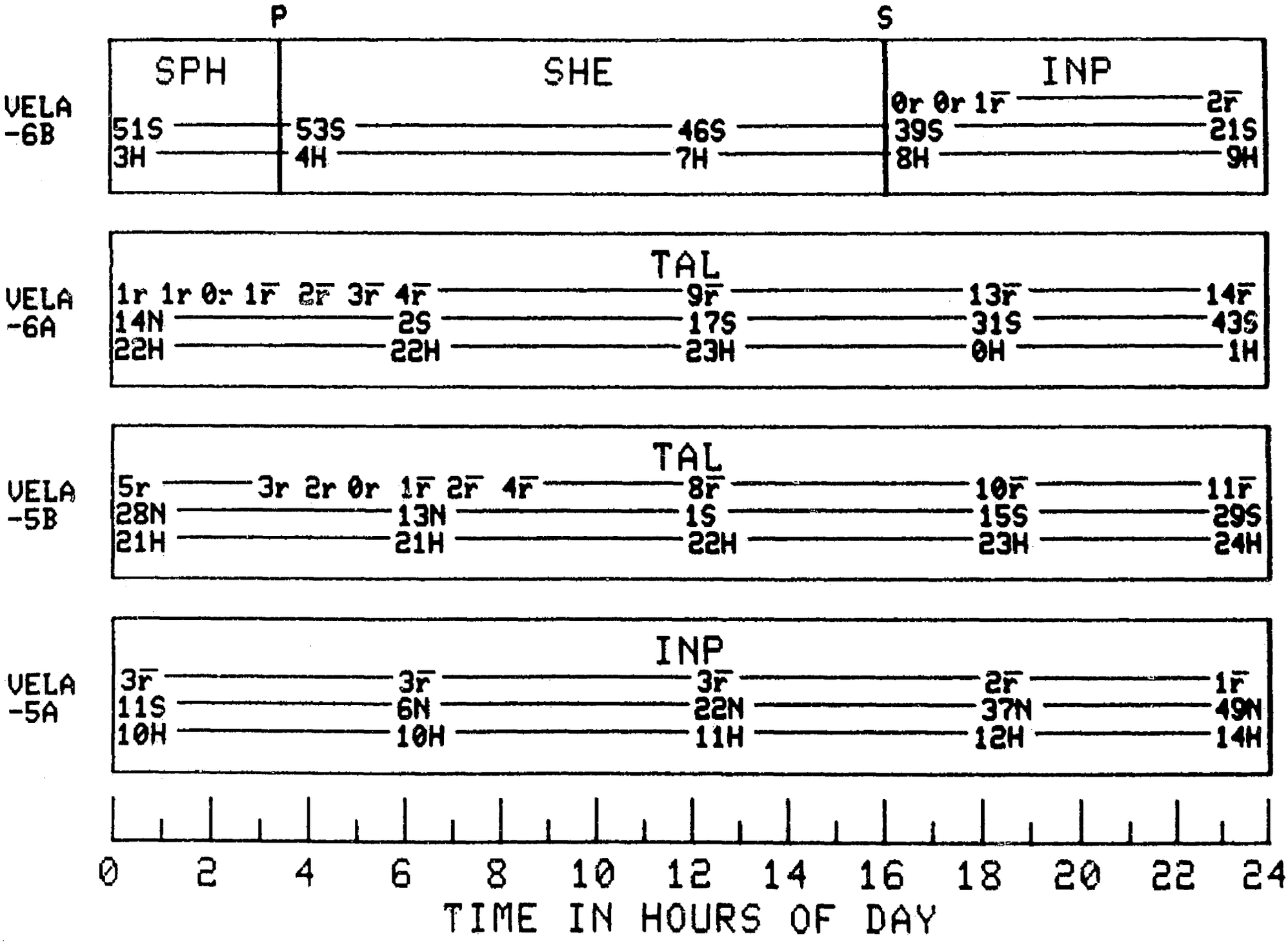
DAY 229 1977


P
SHE
SPH
PROG
NOZ-5
75N
71N
66N
58N
34N
0H
0H
0H
0H
1H
P
C
SHE
SPH
HAWK
EYE-1
72N
78N
75N
72N
76N
83N
64S
4N
24N
40N
22H
20H
19H
19H
20H
1H
18H
21H
21H
21H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

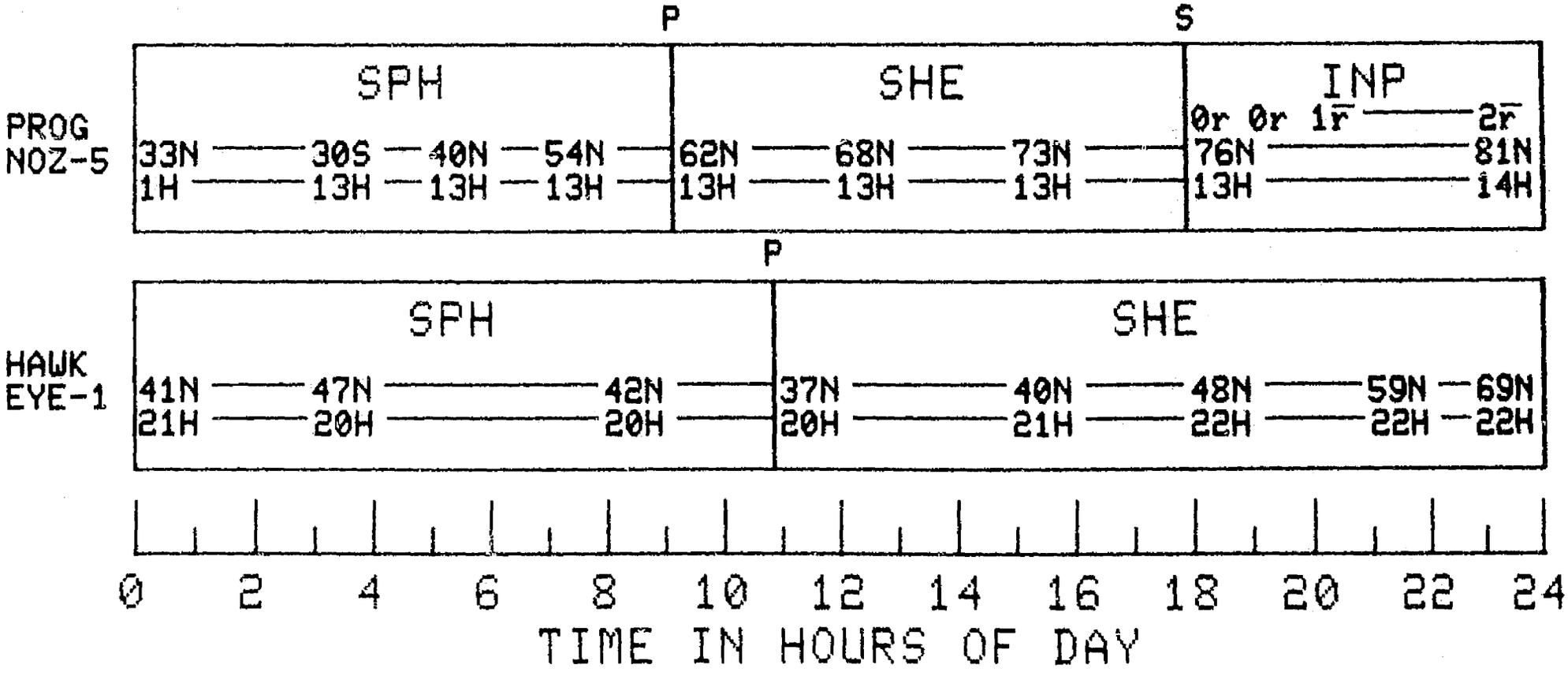
DAY 230 1977


IMP-J
INP
24r̄ 24r̄ 25r̄ 25r̄ 25r̄
4N 8N 11N 14N 17N
11H 11H 11H 12H 12H
P
IMP-H
TAL
SHE
14r̄ 6r̄
23S 23S 21S 20S
1H 2H 3H 3H
S
SOL RAD -11B
INP
0r 1r̄ 2r̄ 4r̄ 5r̄ 5r̄
1N 3N 4N 5N 6N
7H 8H 9H 10H 11H
P
SOL RAD -11A
SPH
TAL
7r̄ 10r̄ 8r̄ 4r̄
2S 3S 5S 5S 6S
19H 20H 22H 23H 24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 230 1977

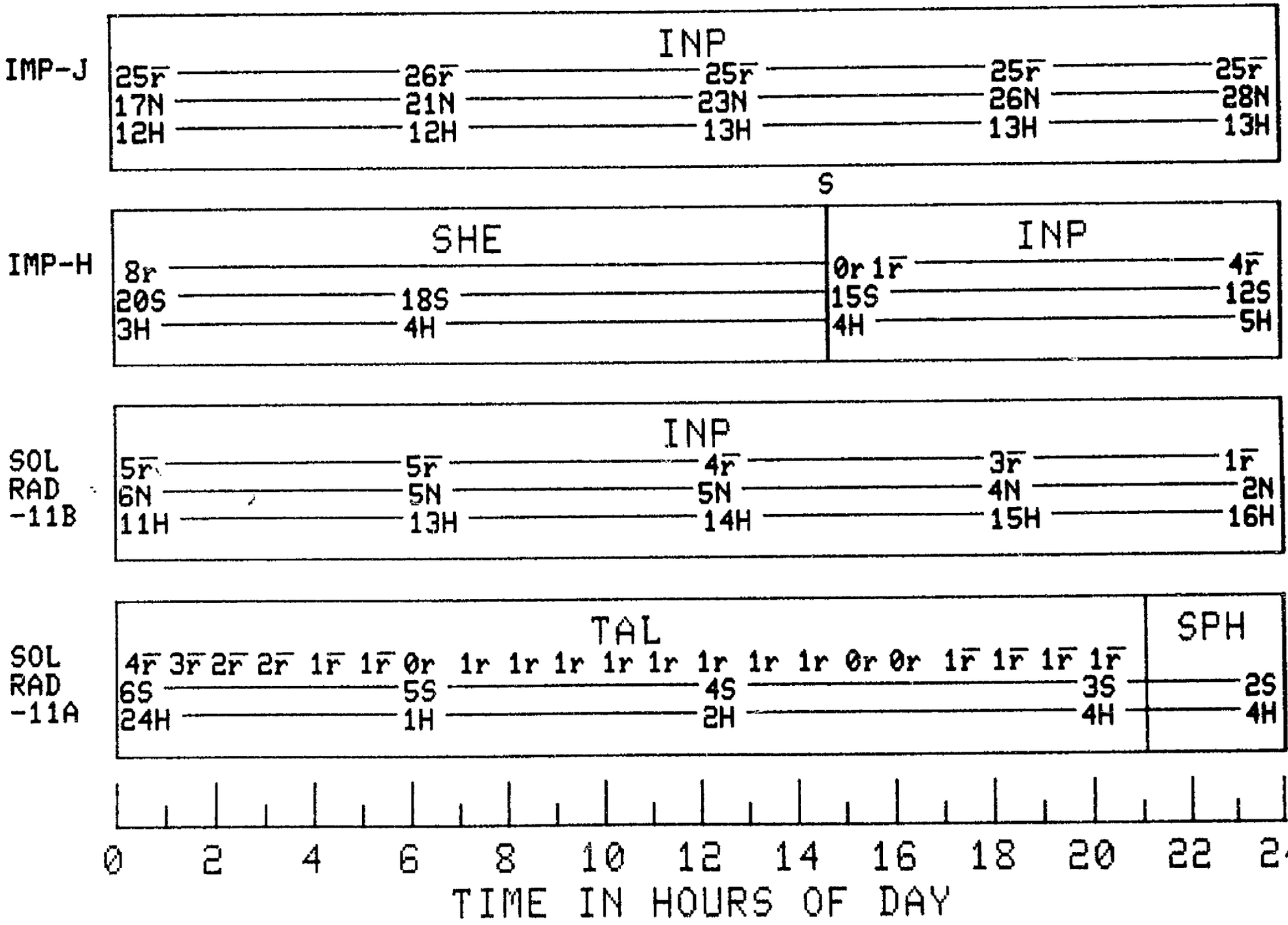

P
S
SPH
SHE
INP
VELA -6B
51S 53S 46S 39S 21S
3H 4H 7H 8H 9H
0r 0r 1r̄ 2r̄
TAL
VELA -6A
1r 1r 0r 1r̄ 2r̄ 3r̄ 4r̄ 9r̄ 13r̄ 14r̄
14N 2S 17S 31S 43S
22H 22H 23H 0H 1H
TAL
VELA -5B
5r 3r 2r 0r 1r̄ 2r̄ 4r̄ 8r̄ 10r̄ 11r̄
28N 13N 1S 15S 29S
21H 21H 22H 23H 24H
INP
VELA -5A
3r̄ 3r̄ 3r̄ 2r̄ 1r̄
11S 6N 22N 37N 49N
10H 10H 11H 12H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 230 1977

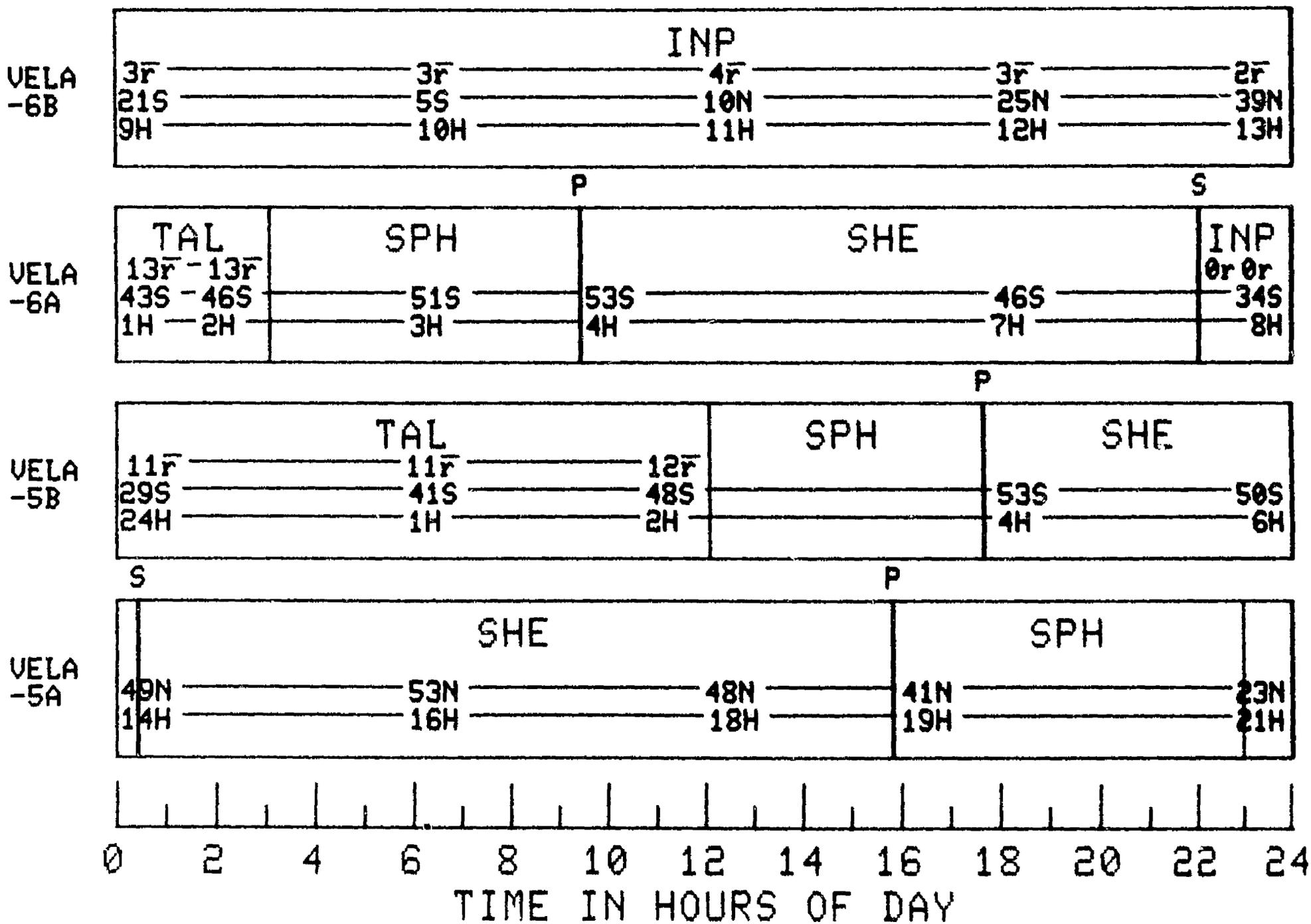

P
S
SPH
SHE
INP
PROG
NOZ-5
33N 30S 40N 54N
1H 13H 13H 13H
62N 68N 73N
13H 13H 13H
0r 0r 1r 2r
76N 81N
13H 14H
P
SPH
SHE
HAWK
EYE-1
41N 47N 42N
21H 20H 20H
37N 40N 48N 59N 69N
20H 21H 22H 22H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

C-3

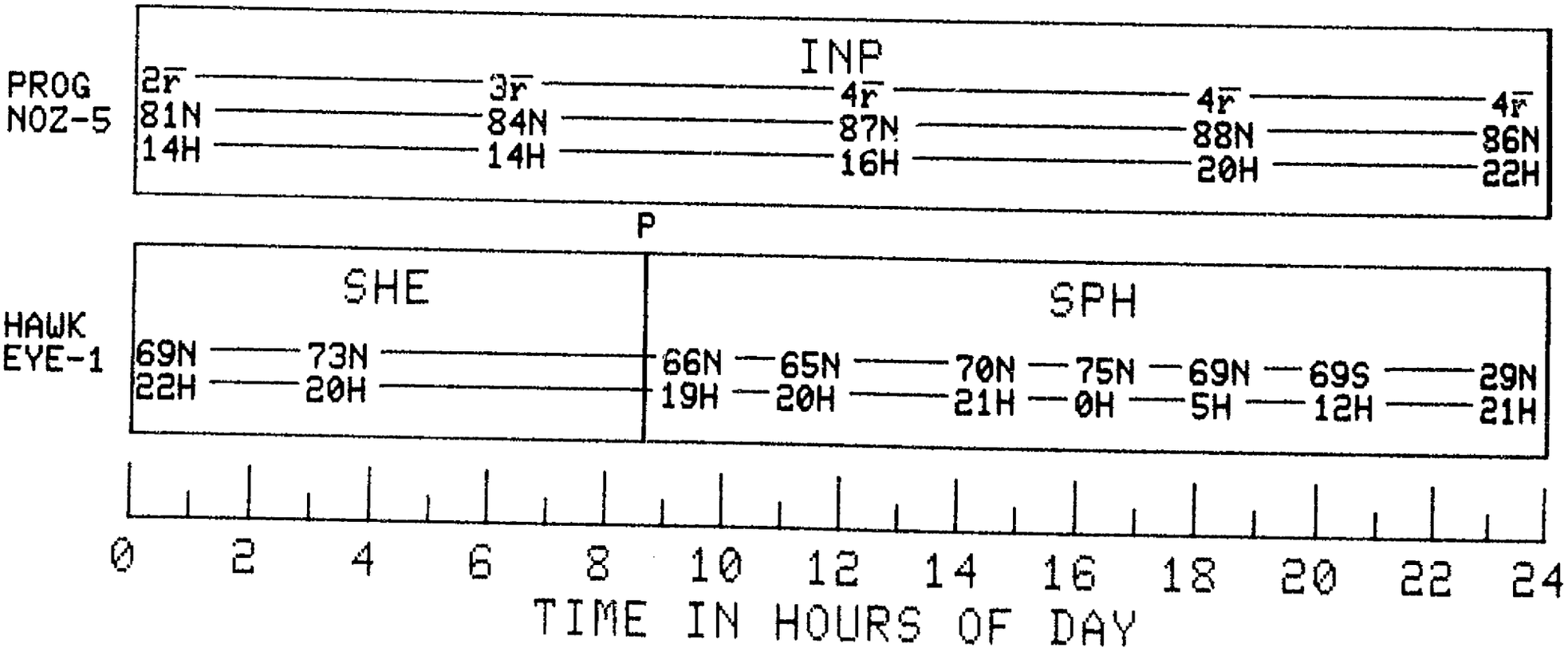
DAY 231 1977



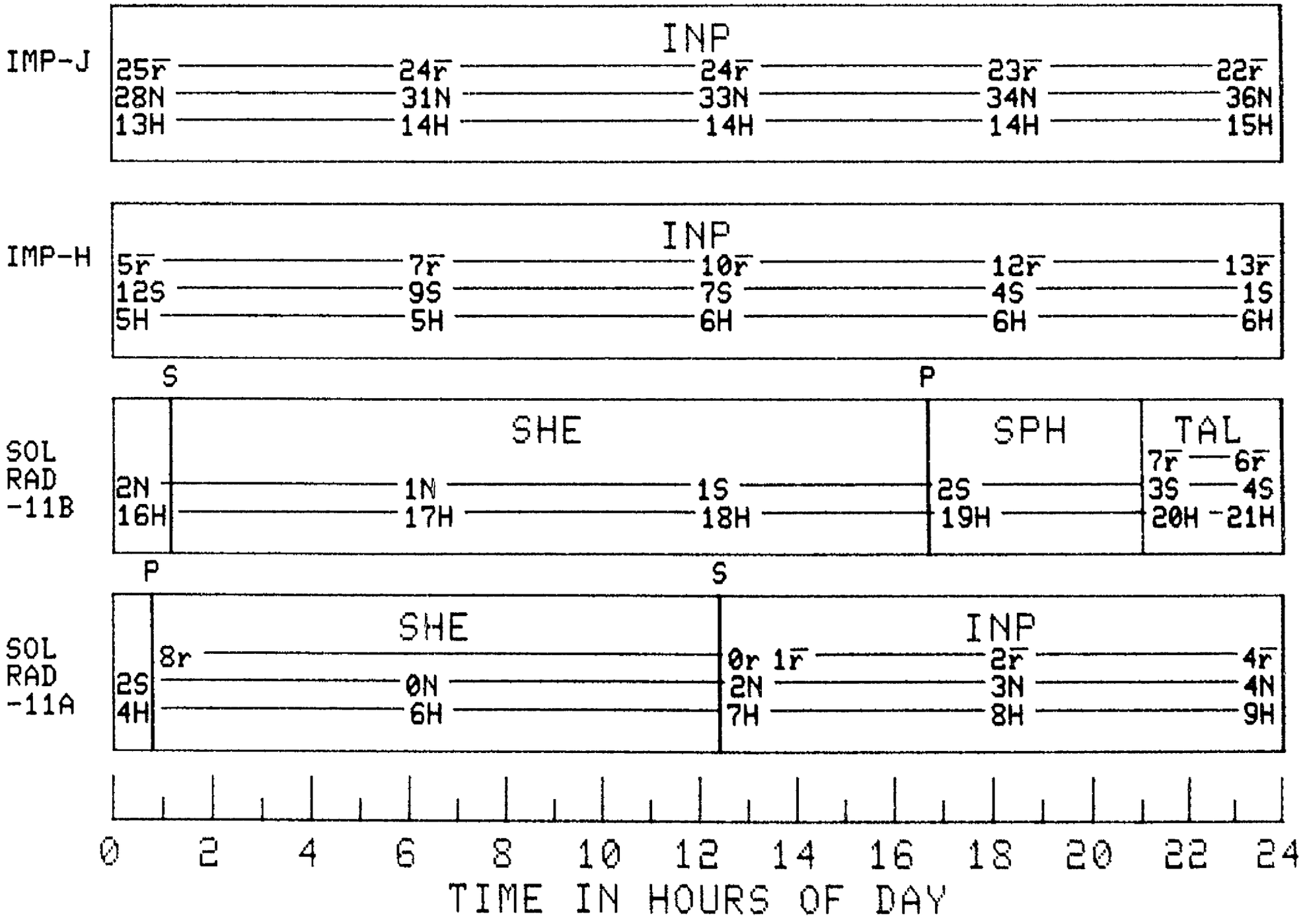
DAY 231 1977


VELA -6B
INP
3r 3r 4r 3r 2r
21S 5S 10N 25N 39N
9H 10H 11H 12H 13H
P
S
VELA -6A
TAL
13r - 13r
43S - 46S
1H - 2H
SPH
51S
3H
SHE
53S 46S
4H 7H
INP
0r 0r
34S
8H
P
VELA -5B
TAL
11r 11r 12r
29S 41S 48S
24H 1H 2H
SPH
SHE
53S 50S
4H 6H
S
P
VELA -5A
SHE
49N 53N 48N
14H 16H 18H
SPH
41N 23N
19H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

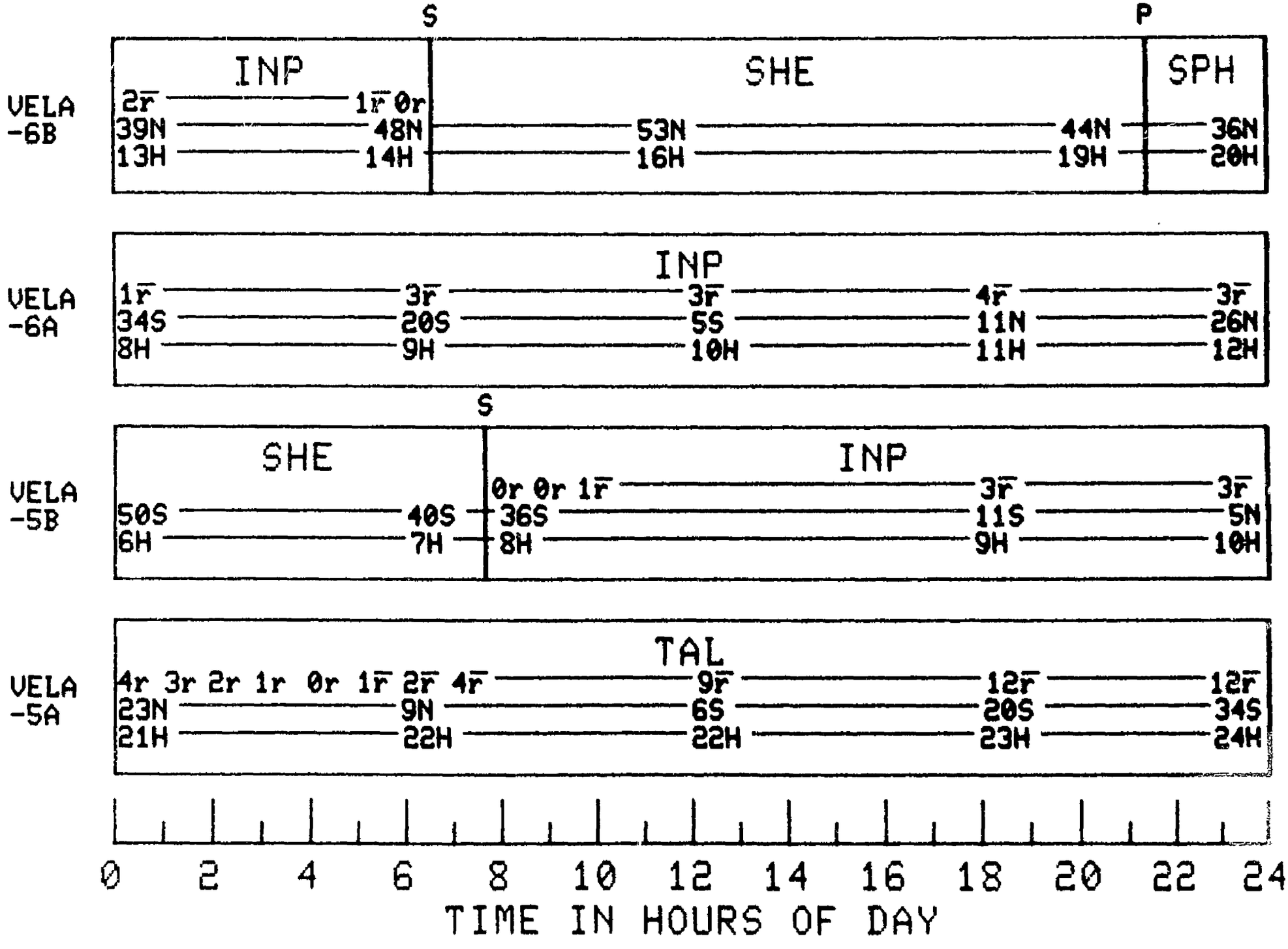
DAY 231 1977


PROG
NOZ-5
INP
2r̄
81N
14H
3r̄
84N
14H
4r̄
87N
16H
4r̄
88N
20H
4r̄
86N
22H
P
HAWK
EYE-1
SHE
69N
22H
73N
20H
SPH
66N
19H
65N
20H
70N
21H
75N
0H
69N
5H
69S
12H
29N
21H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

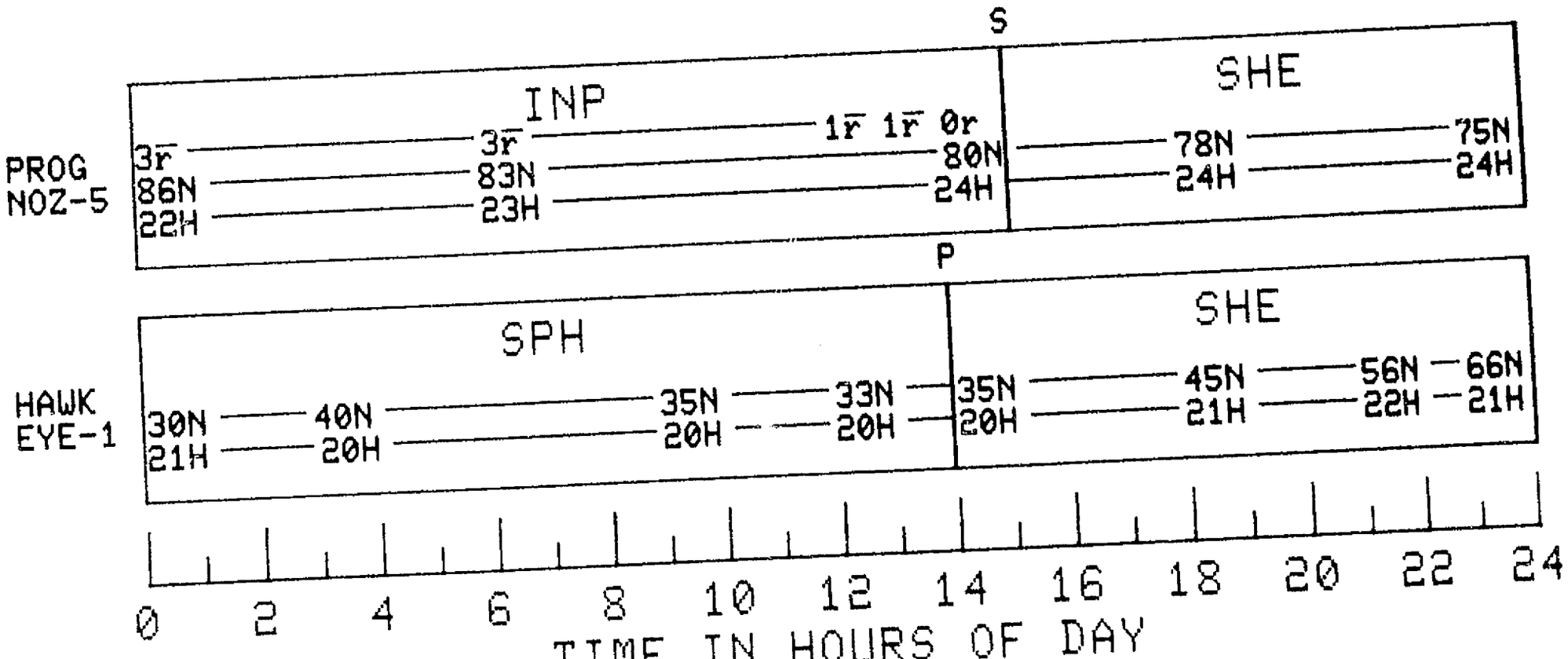
DAY 232 1977


IMP-J
INP
25r 24r 24r 23r 22r
28N 31N 33N 34N 36N
13H 14H 14H 14H 15H
IMP-H
INP
5r 7r 10r 12r 13r
12S 9S 7S 4S 1S
5H 5H 6H 6H 6H
S
P
SOL RAD -11B
SHE
SPH
TAL
2N 1N 1S 2S 7r 6r
16H 17H 18H 19H 3S 4S
20H 21H
P
S
SOL RAD -11A
SHE
INP
8r 0r 1r 2r 4r
2S 0N 2N 3N 4N
4H 6H 7H 8H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

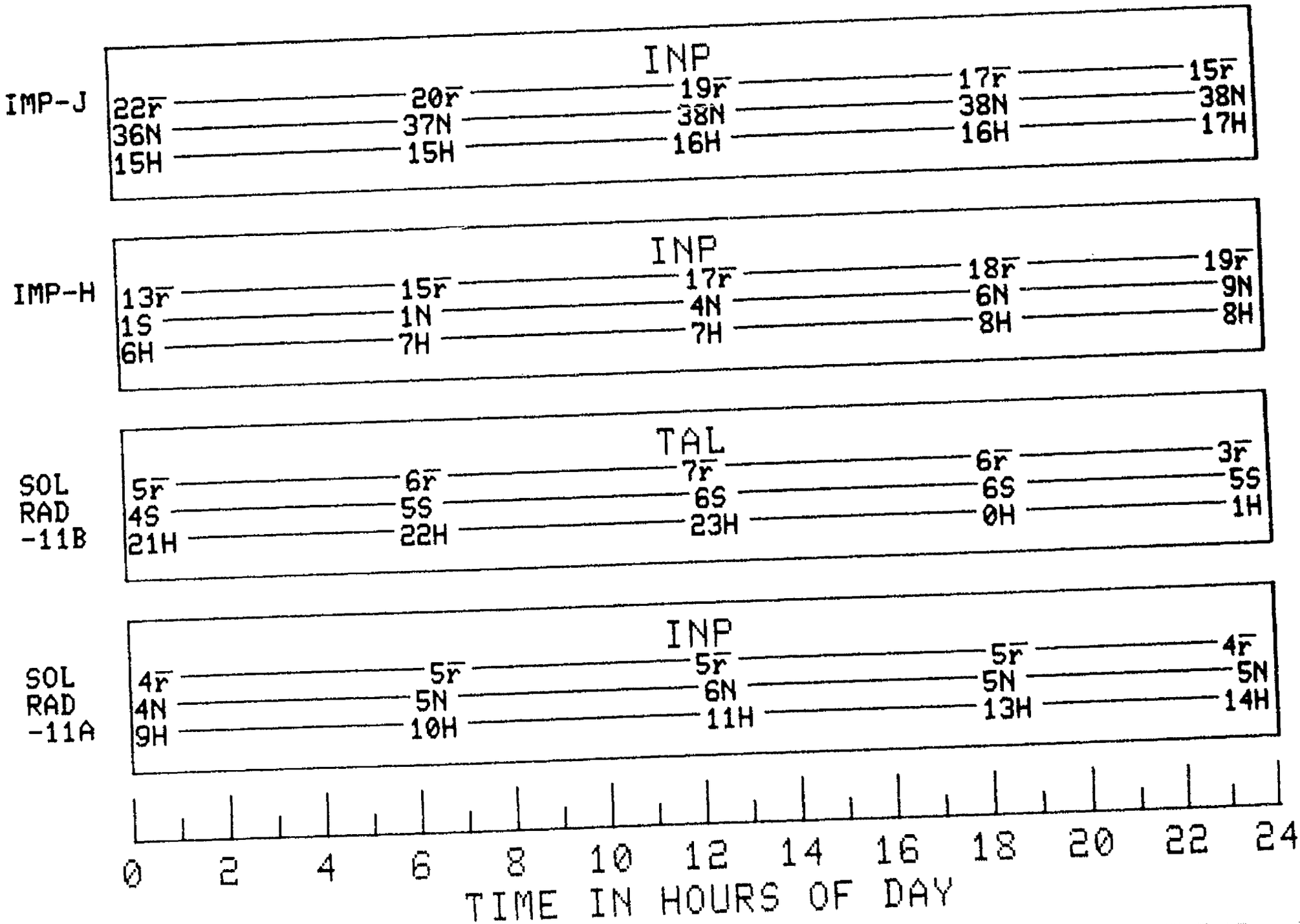
DAY 232 1977


S
P
INP
SHE
SPH
VELA -6B
2r̄ 1r̄ 0r
39N 48N 53N 44N 36N
13H 14H 16H 19H 20H
INP
VELA -6A
1r̄ 3r̄ 3r̄ 4r̄ 3r̄
34S 20S 5S 11N 26N
8H 9H 10H 11H 12H
S
SHE
INP
VELA -5B
0r 0r 1r̄ 3r̄ 3r̄
50S 40S 36S 11S 5N
6H 7H 8H 9H 10H
TAL
VELA -5A
4r 3r 2r 1r 0r 1r̄ 2r̄ 4r̄ 9r̄ 12r̄ 12r̄
23N 9N 6S 20S 34S
21H 22H 22H 23H 24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

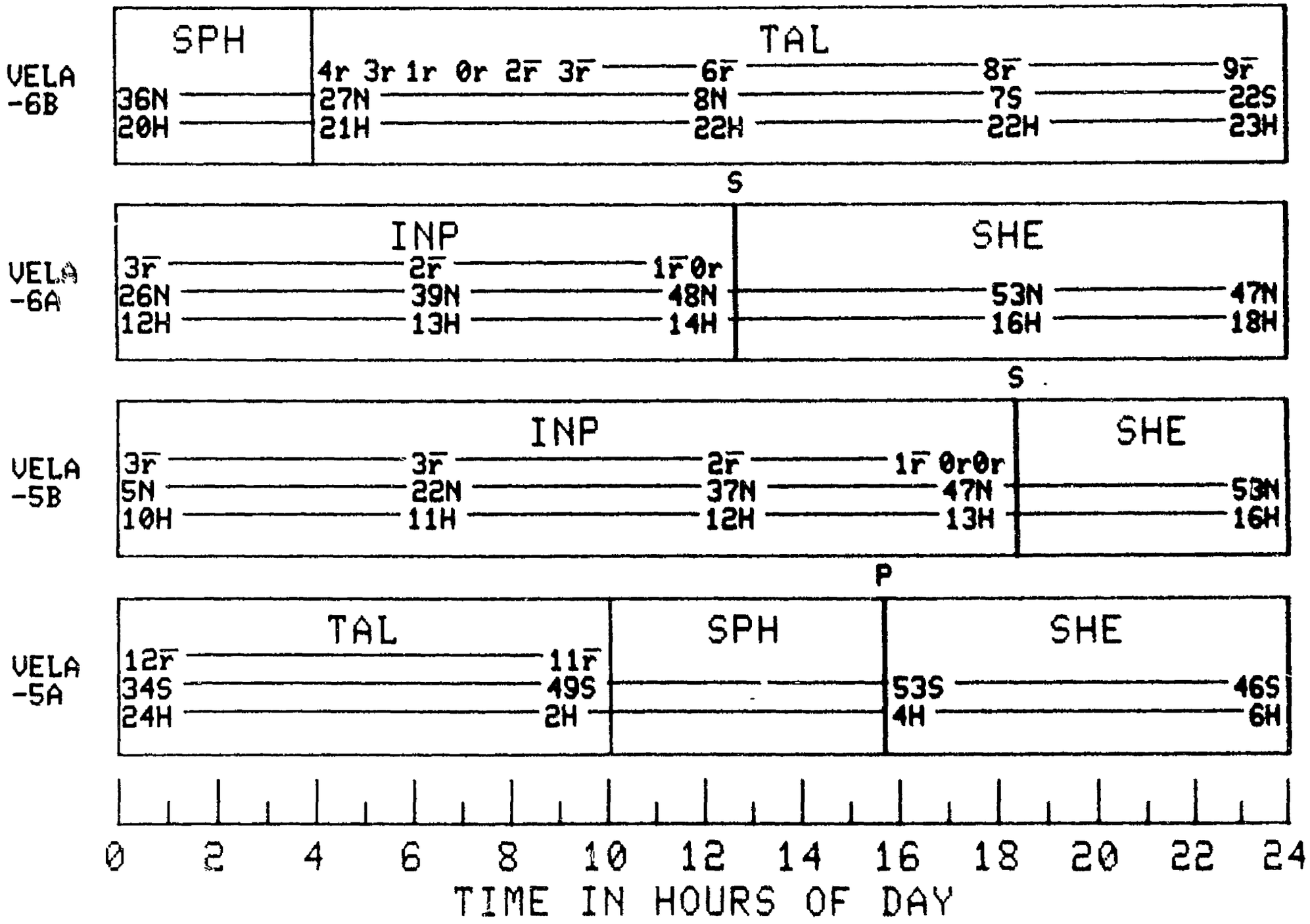
DAY 232 1977


S
INP
SHE
PROG
NOZ-5
3r̄
86N
22H
3r̄
83N
23H
1r̄ 1r̄ 0r
80N
24H
78N
24H
75N
24H
P
SPH
SHE
HAWK
EYE-1
30N
21H
40N
20H
35N
20H
33N
20H
35N
20H
45N
21H
56N
22H
66N
21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

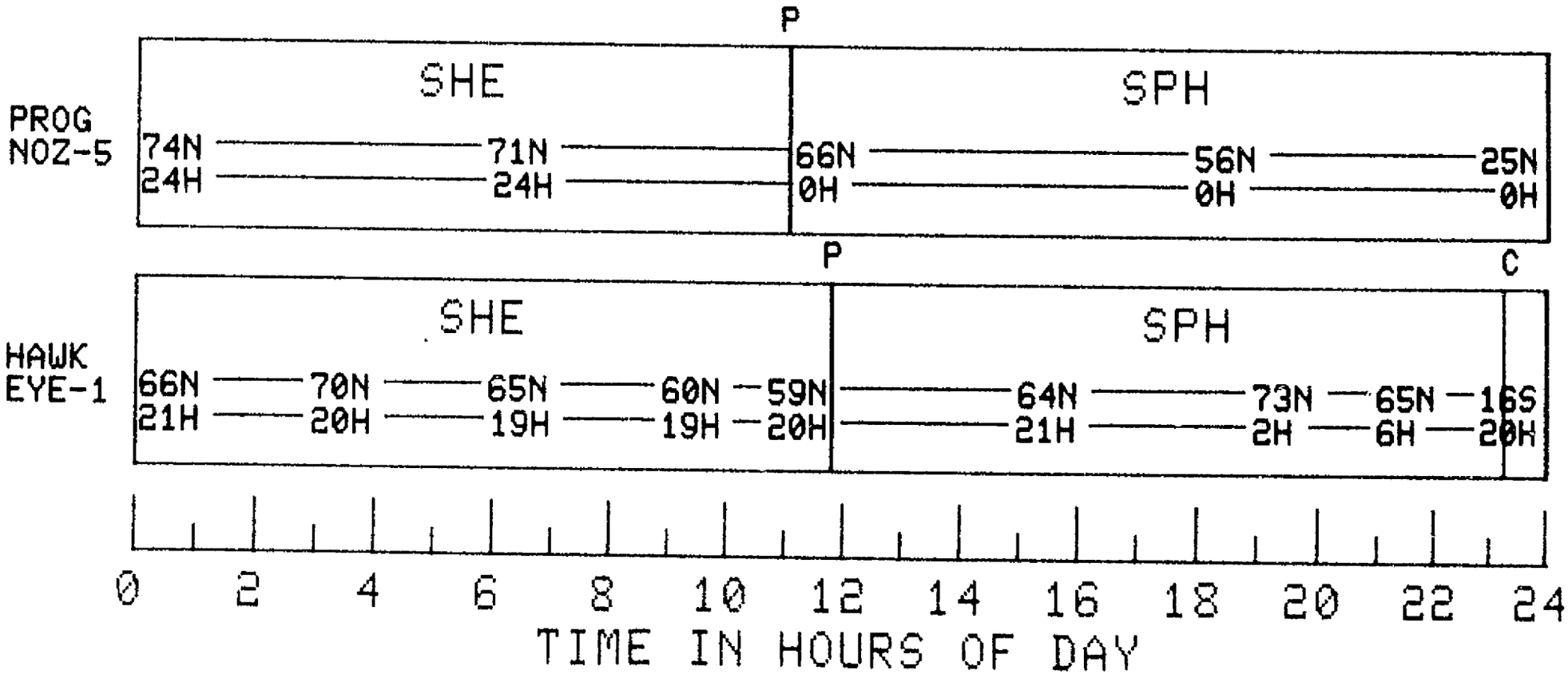
DAY 233 1977


IMP-J
INP
22r 20r 19r 17r 15r
36N 37N 38N 38N 38N
15H 15H 16H 16H 17H
IMP-H
INP
13r 15r 17r 18r 19r
1S 1N 4N 6N 9N
6H 7H 7H 8H 8H
SOL RAD -11B
TAL
5r 6r 7r 6r 3r
4S 5S 6S 6S 5S
21H 22H 23H 0H 1H
SOL RAD -11A
INP
4r 5r 5r 5r 4r
4N 5N 6N 5N 5N
9H 10H 11H 13H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

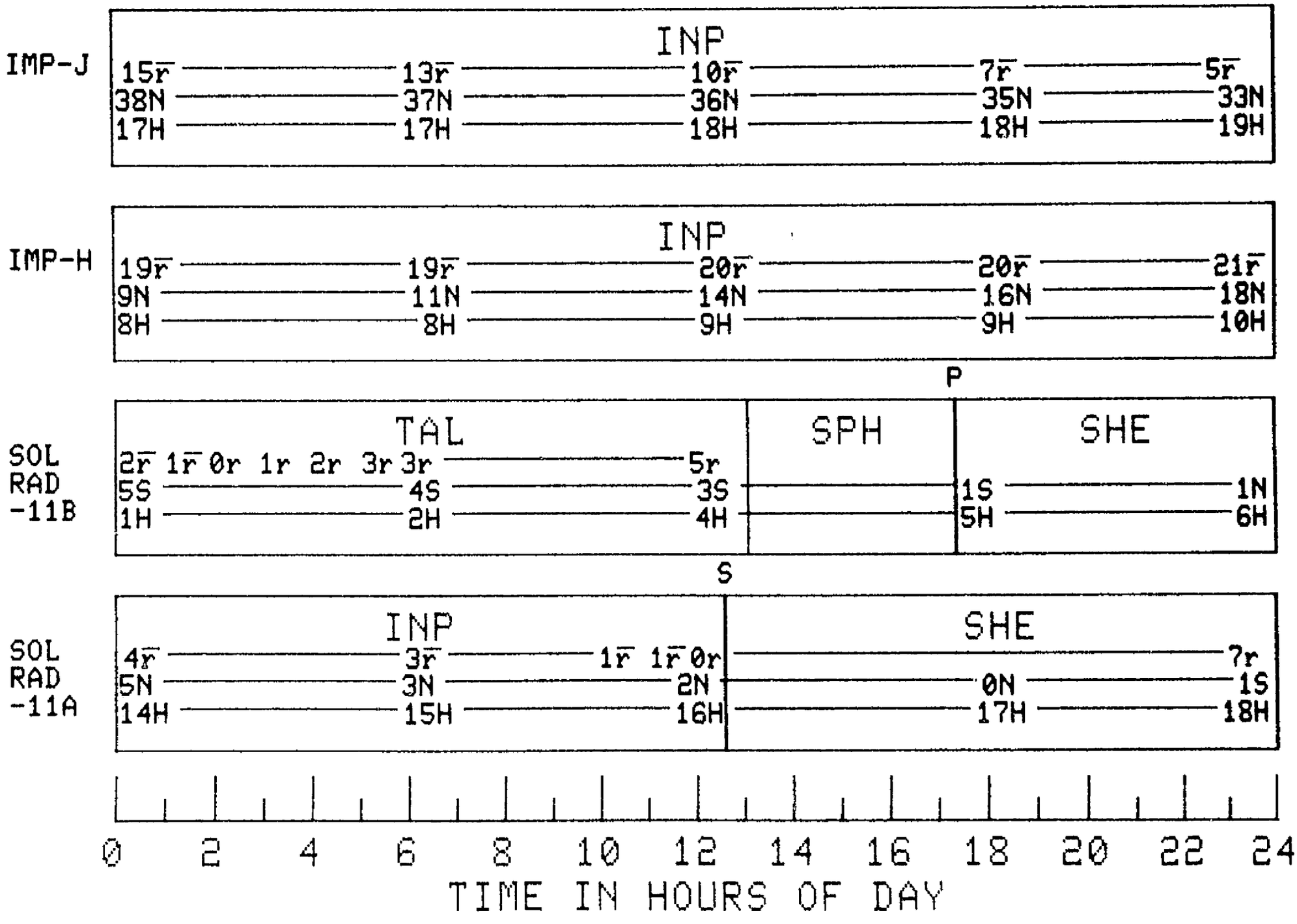
DAY 233 1977


VELA -6B
SPH
TAL
4r 3r 1r 0r 2r̄ 3r̄ 6r̄ 8r̄ 9r̄
36N 27N 8N 7S 22S
20H 21H 22H 22H 23H
S
VELA -6A
INP
SHE
3r̄ 2r̄ 1r̄0r
26N 39N 48N 53N 47N
12H 13H 14H 16H 18H
S
VELA -5B
INP
SHE
3r̄ 3r̄ 2r̄ 1r̄ 0r0r
5N 22N 37N 47N 53N
10H 11H 12H 13H 16H
P
VELA -5A
TAL
SPH
SHE
12r̄ 11r̄
34S 49S 53S 46S
24H 2H 4H 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

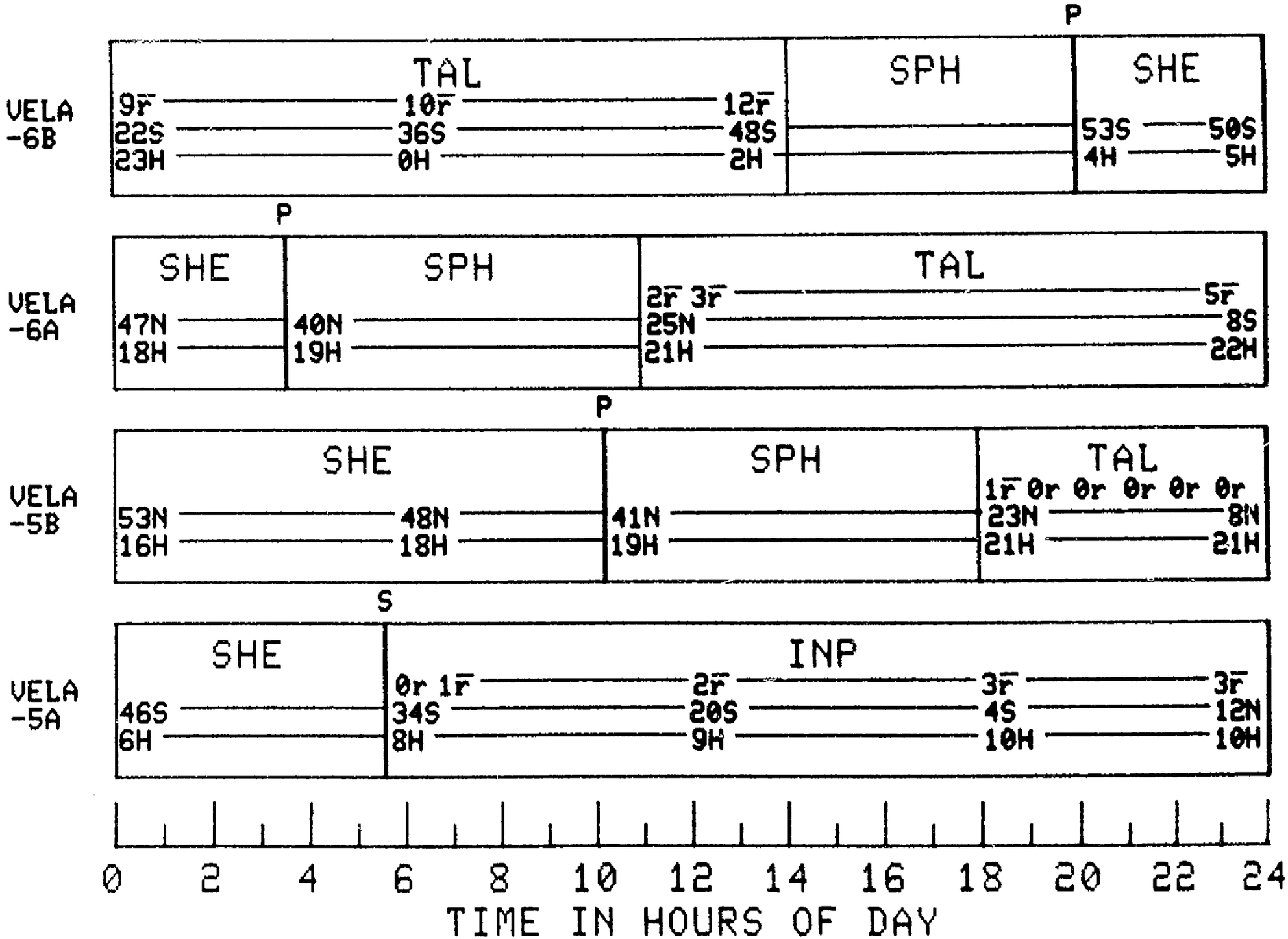
DAY 233 1977


P
SHE
SPH
PROG
NOZ-5
74N
24H
71N
24H
66N
0H
56N
0H
25N
0H
P
C
SHE
SPH
HAWK
EYE-1
66N
21H
70N
20H
65N
19H
60N
19H
59N
20H
64N
21H
73N
2H
65N
6H
16S
20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

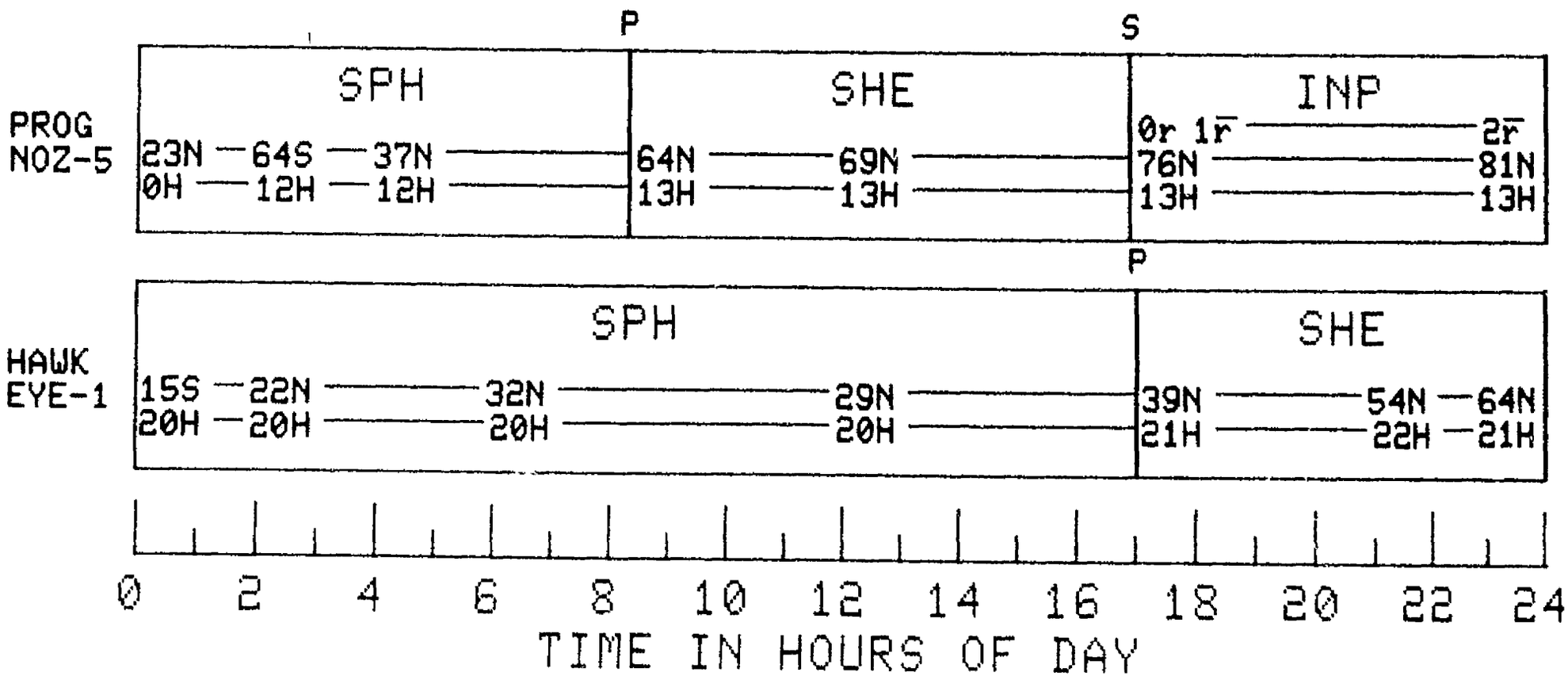
DAY 234 1977


IMP-J
INP
15r̄ 13r̄ 10r̄ 7r̄ 5r̄
38N 37N 36N 35N 33N
17H 17H 18H 18H 19H
IMP-H
INP
19r̄ 19r̄ 20r̄ 20r̄ 21r̄
9N 11N 14N 16N 18N
8H 8H 9H 9H 10H
P
SOL RAD -11B
TAL
SPH
SHE
2r̄ 1r̄ 0r 1r 2r 3r 3r 5r
5S 4S 3S 1S 1N
1H 2H 4H 5H 6H
S
SOL RAD -11A
INP
SHE
4r̄ 3r̄ 1r̄ 1r̄ 0r ?r
5N 3N 2N 0N 1S
14H 15H 16H 17H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

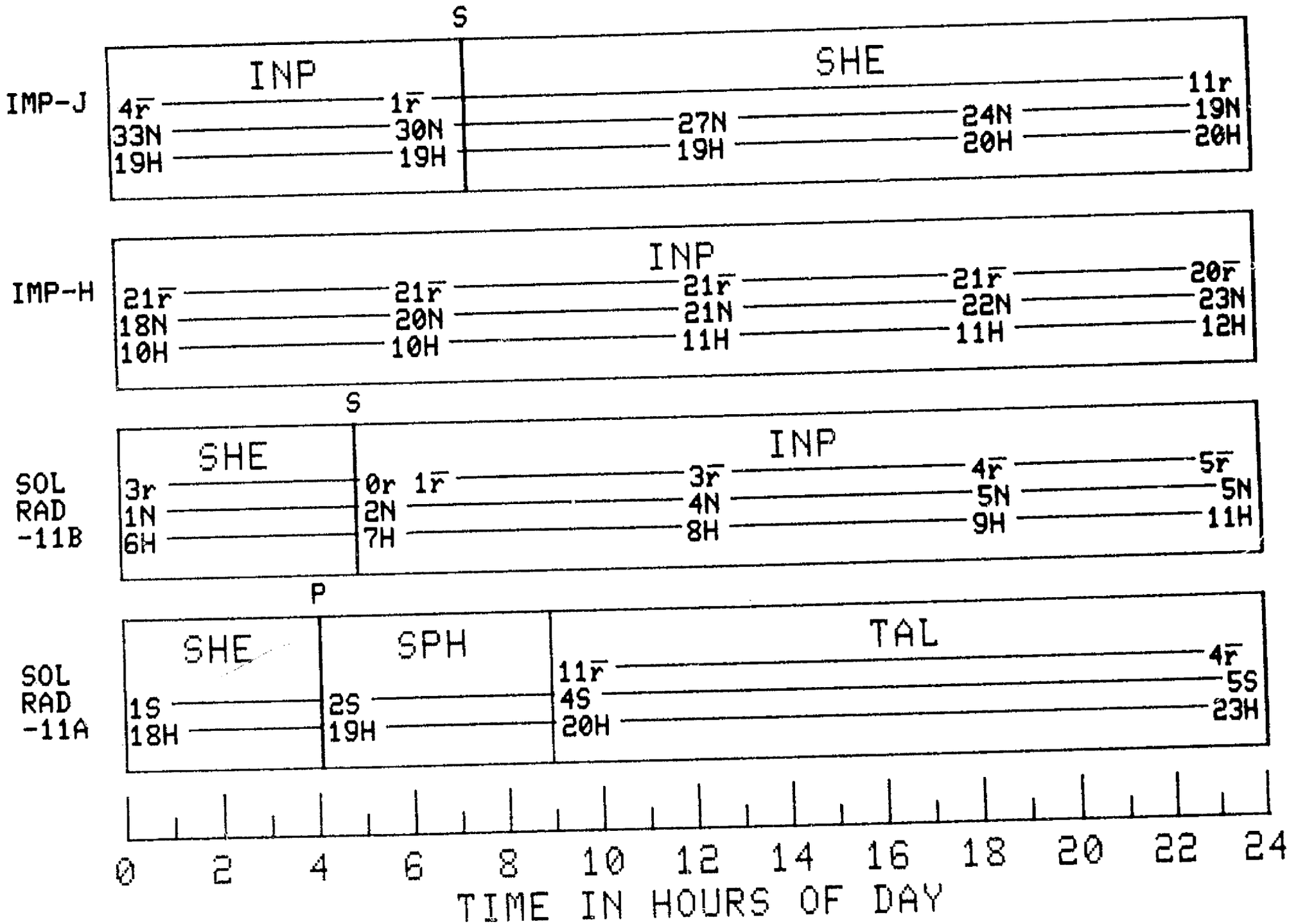
DAY 234 1977


VELA -6B
TAL
SPH
SHE
P
9r̄ 10r̄ 12r̄
22S 36S 48S
23H 0H 2H
53S 50S
4H 5H
VELA -6A
SHE
SPH
TAL
P
47N 40N
18H 19H
2r̄ 3r̄ 5r̄
25N 8S
21H 22H
VELA -5B
SHE
SPH
TAL
P
53N 48N
16H 18H
41N
19H
1r̄ 0r 0r 0r 0r 0r
23N 8N
21H 21H
VELA -5A
SHE
INP
S
46S
6H
0r 1r̄ 2r̄ 3r̄ 3r̄
34S 20S 4S 12N
8H 9H 10H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

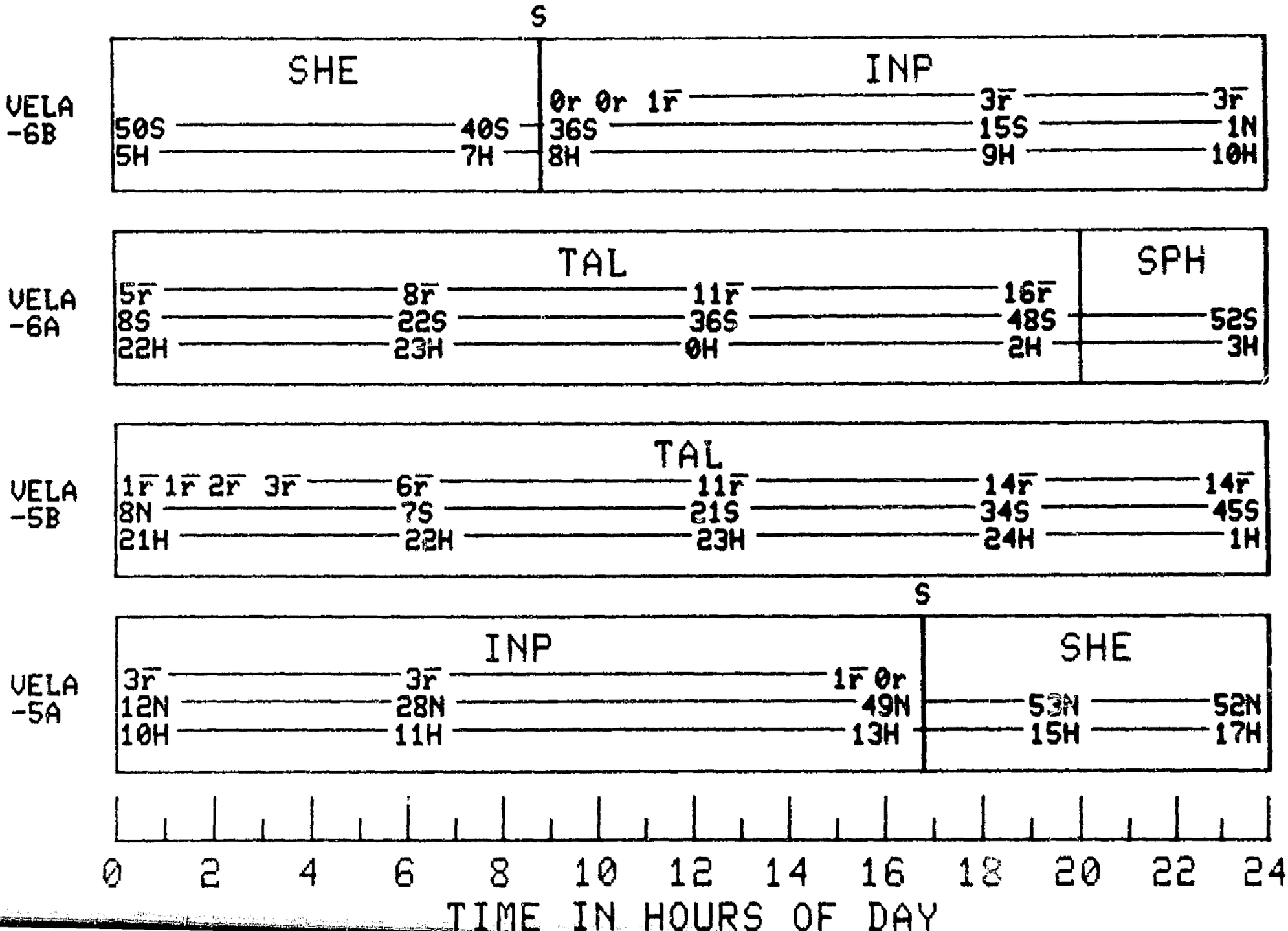
DAY 234 1977


P
S
SPH
SHE
INP
PROG
NOZ-5
23N 64S 37N
0H 12H 12H
64N 69N
13H 13H
0r 1r 2r
76N 81N
13H 13H
P
SPH
SHE
HAWK
EYE-1
15S 22N 32N 29N
20H 20H 20H 20H
39N 54N 64N
21H 22H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

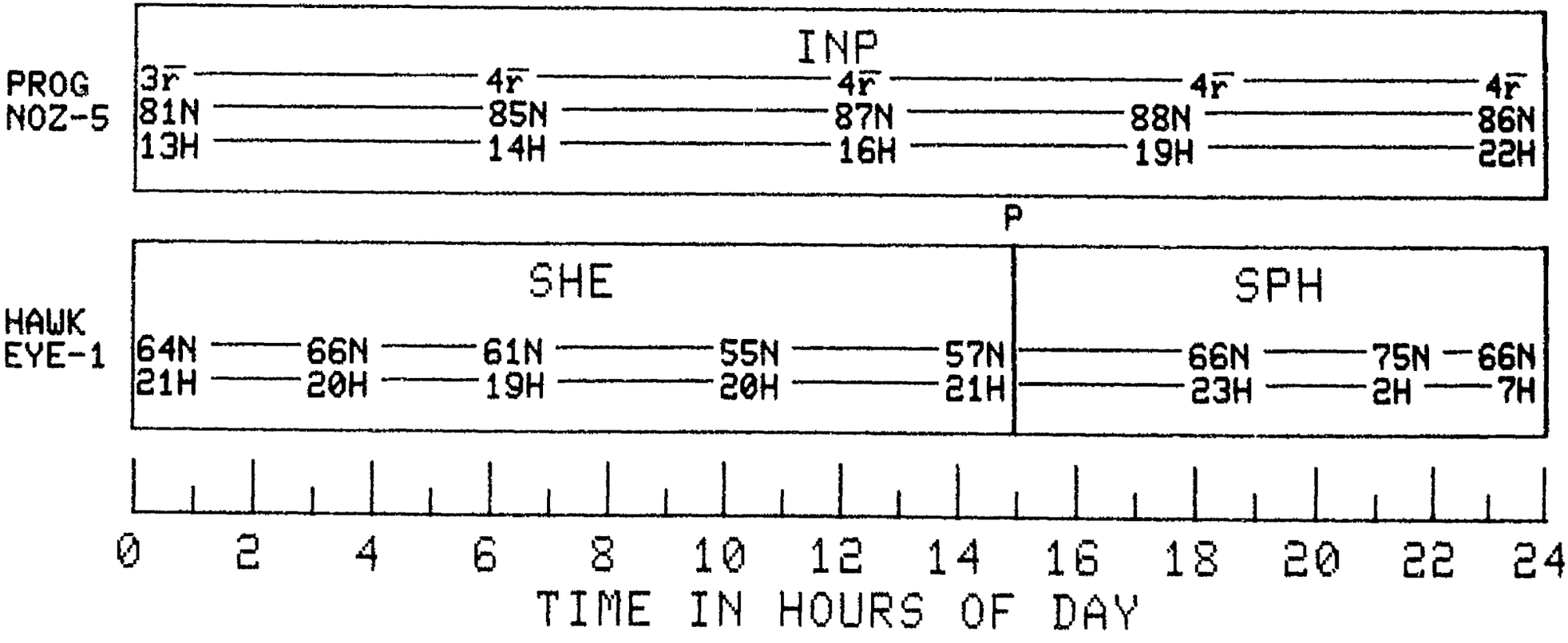
DAY 235 1977

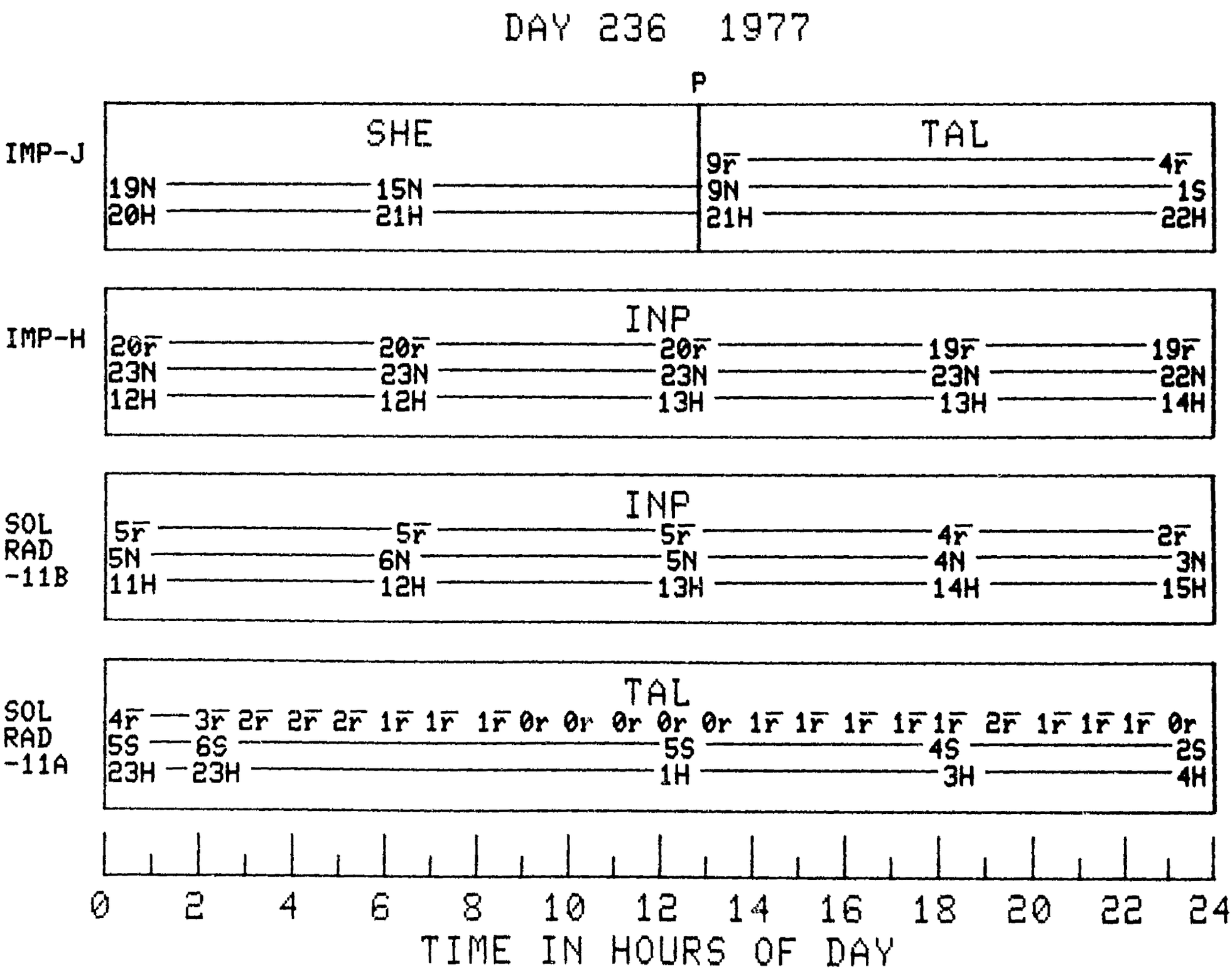

S
IMP-J
INP
SHE
4r
1r
33N
30N
19H
19H
27N
24N
11r
19N
19H
20H
20H
IMP-H
INP
21r
21r
21r
21r
20r
18N
20N
21N
22N
23N
10H
10H
11H
11H
12H
S
SOL RAD -11B
SHE
INP
3r
0r 1r
3r
4r
5r
1N
2N
4N
5N
5N
6H
7H
8H
9H
11H
P
SOL RAD -11A
SHE
SPH
TAL
11r
4r
1S
2S
4S
5S
18H
19H
20H
23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

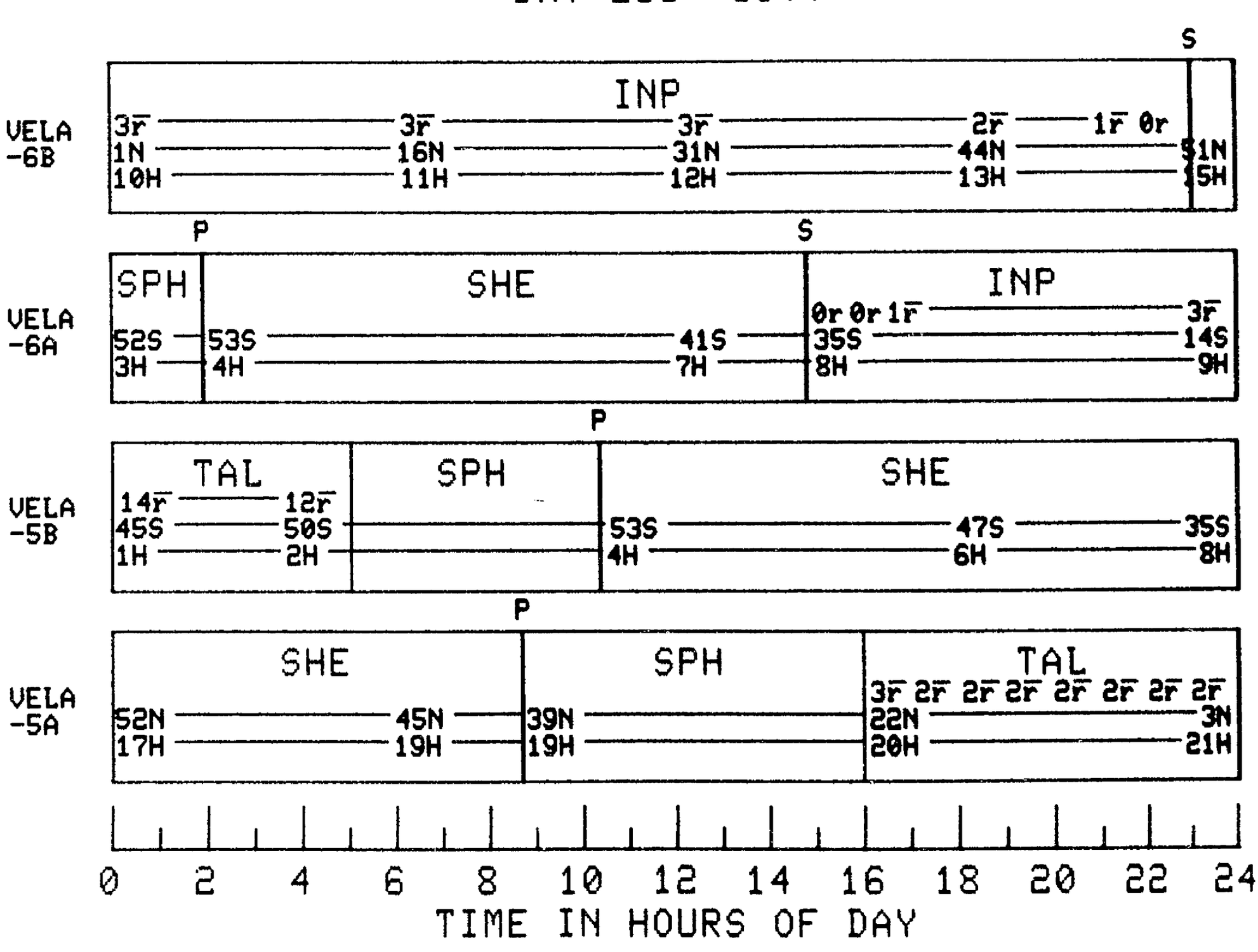
DAY 235 1977


S
SHE
INP
VELA -6B
50S 40S
5H 7H
0r 0r 1r 3r 3r
36S 15S 1N
8H 9H 10H
TAL
SPH
VELA -6A
5r 8r 11r 16r
8S 22S 36S 48S 52S
22H 23H 0H 2H 3H
TAL
VELA -5B
1r 1r 2r 3r 6r 11r 14r 14r
8N 7S 21S 34S 45S
21H 22H 23H 24H 1H
S
INP
SHE
VELA -5A
3r 3r 1r 0r
12N 28N 49N 53N 52N
10H 11H 13H 15H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

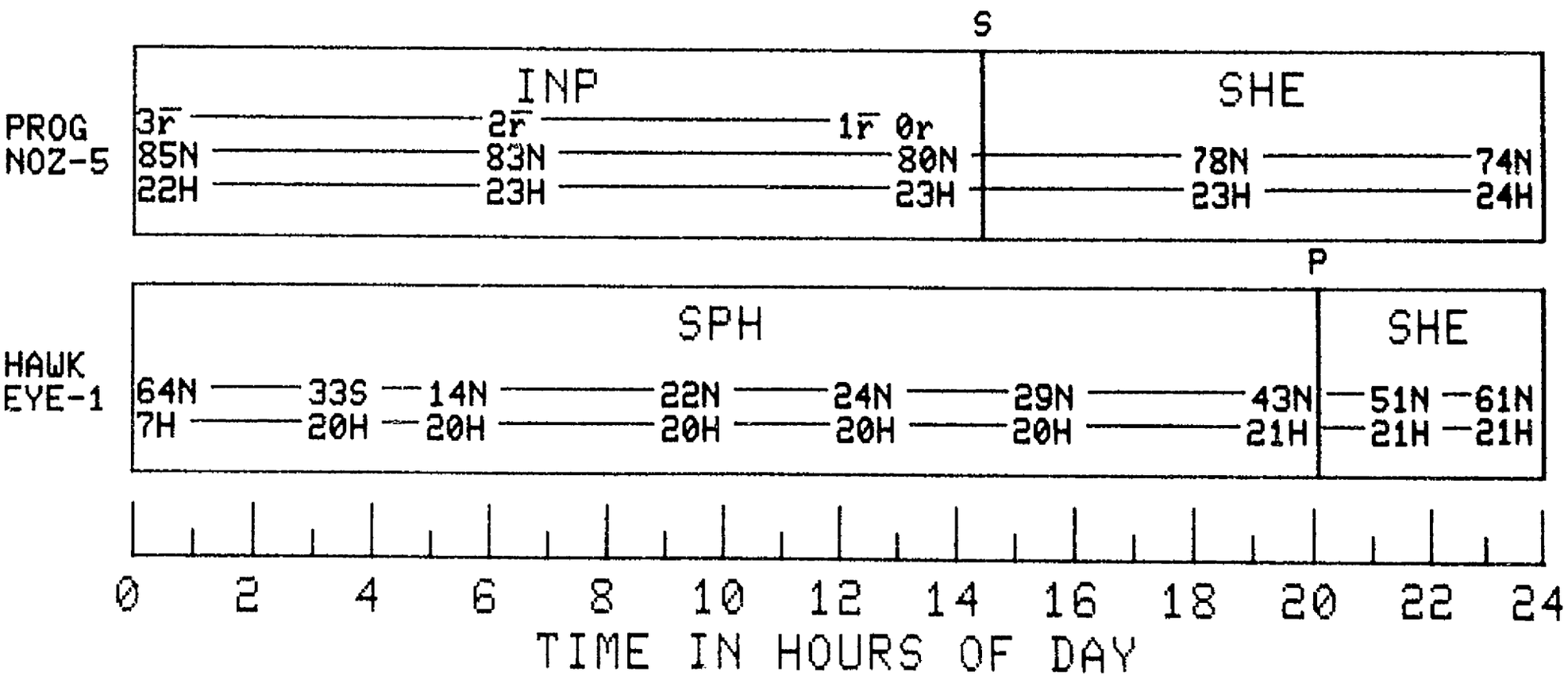
DAY 235 1977


INP
PROG
NOZ-5
3r̄
4r̄
4r̄
4r̄
4r̄
81N
85N
87N
88N
86N
13H
14H
16H
19H
22H
P
SHE
SPH
HAWK
EYE-1
64N
66N
61N
55N
57N
66N
75N
66N
21H
20H
19H
20H
21H
23H
2H
7H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

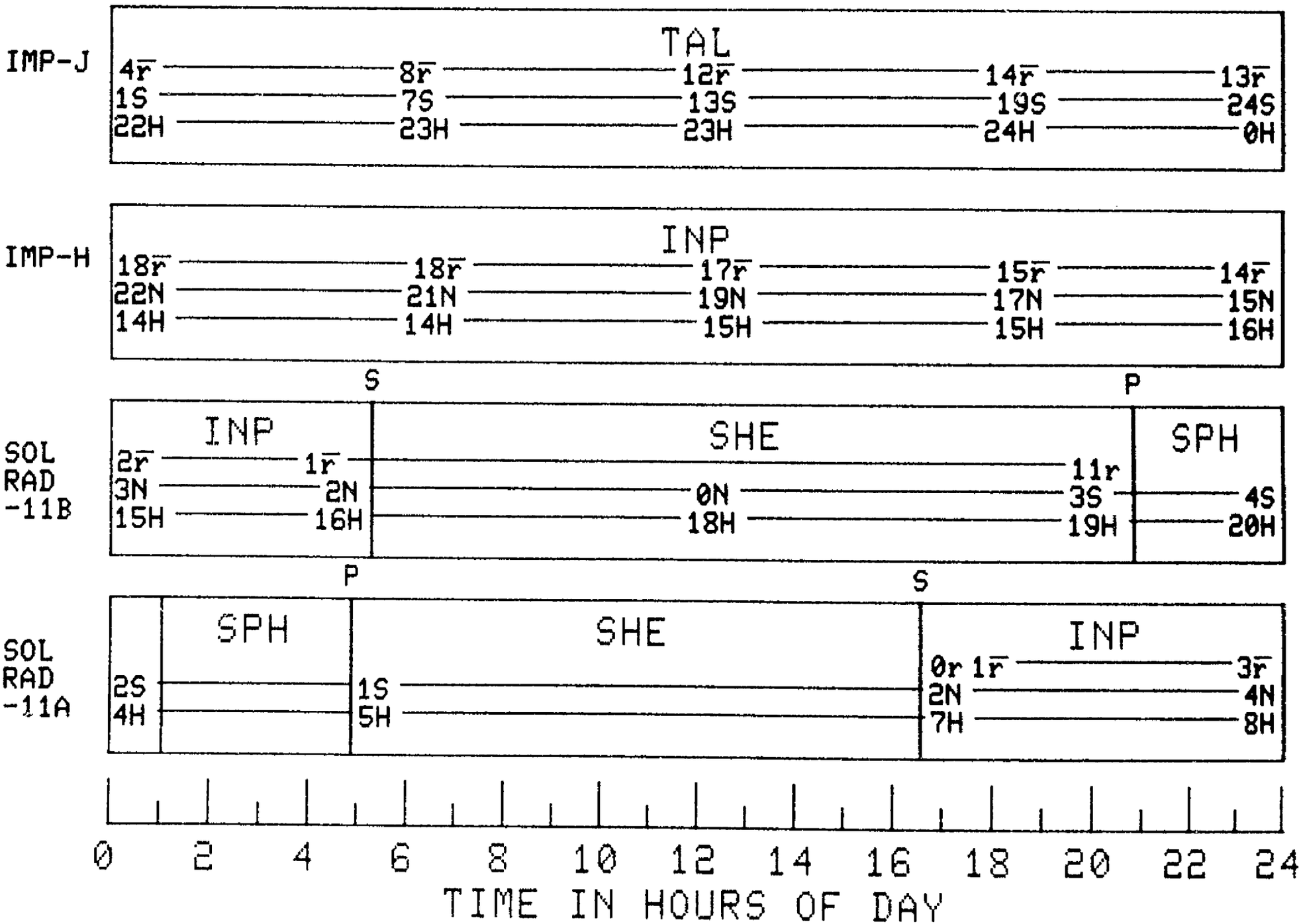

DAY 236 1977
P
IMP-J
SHE
TAL
19N
20H
15N
21H
9r̄
9N
21H
4r̄
1S
22H
IMP-H
INP
20r̄ 23N 12H
20r̄ 23N 12H
20r̄ 23N 13H
19r̄ 23N 13H
19r̄ 22N 14H
SOL RAD -11B
INP
5r̄ 5N 11H
5r̄ 6N 12H
5r̄ 5N 13H
4r̄ 4N 14H
2r̄ 3N 15H
SOL RAD -11A
TAL
4r̄ 5S 23H
3r̄ 6S 23H
2r̄ 2r̄ 2r̄ 1r̄ 1r̄ 1r̄ 0r 0r 0r 0r 0r 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 2r̄ 1r̄ 1r̄ 1r̄ 0r
5S 1H
4S 3H
2S 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

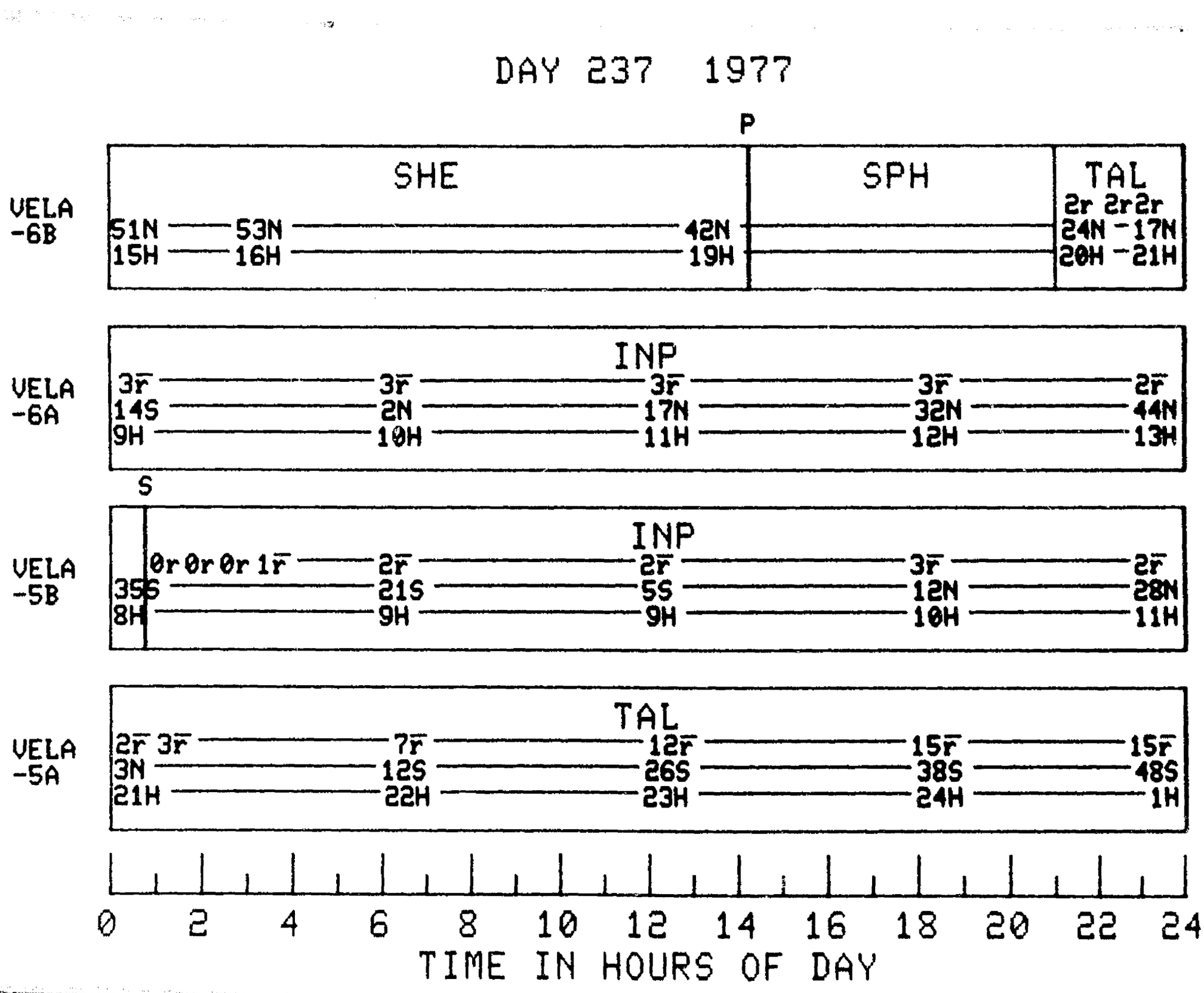

DAY 236 1977
VELA -6B
INP
3r 3r 3r 2r 1r 0r
1N 16N 31N 44N 51N
10H 11H 12H 13H 15H
S
VELA -6A
P
S
SPH
SHE
INP
52S 53S 41S 0r 0r 1r 3r
35S 14S
3H 4H 7H 8H 9H
VELA -5B
P
TAL
SPH
SHE
14r 12r
45S 50S 53S 47S 35S
1H 2H 4H 6H 8H
VELA -5A
P
SHE
SPH
TAL
3r 2r 2r 2r 2r 2r 2r 2r
52N 45N 39N 22N 3N
17H 19H 19H 20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 236 1977

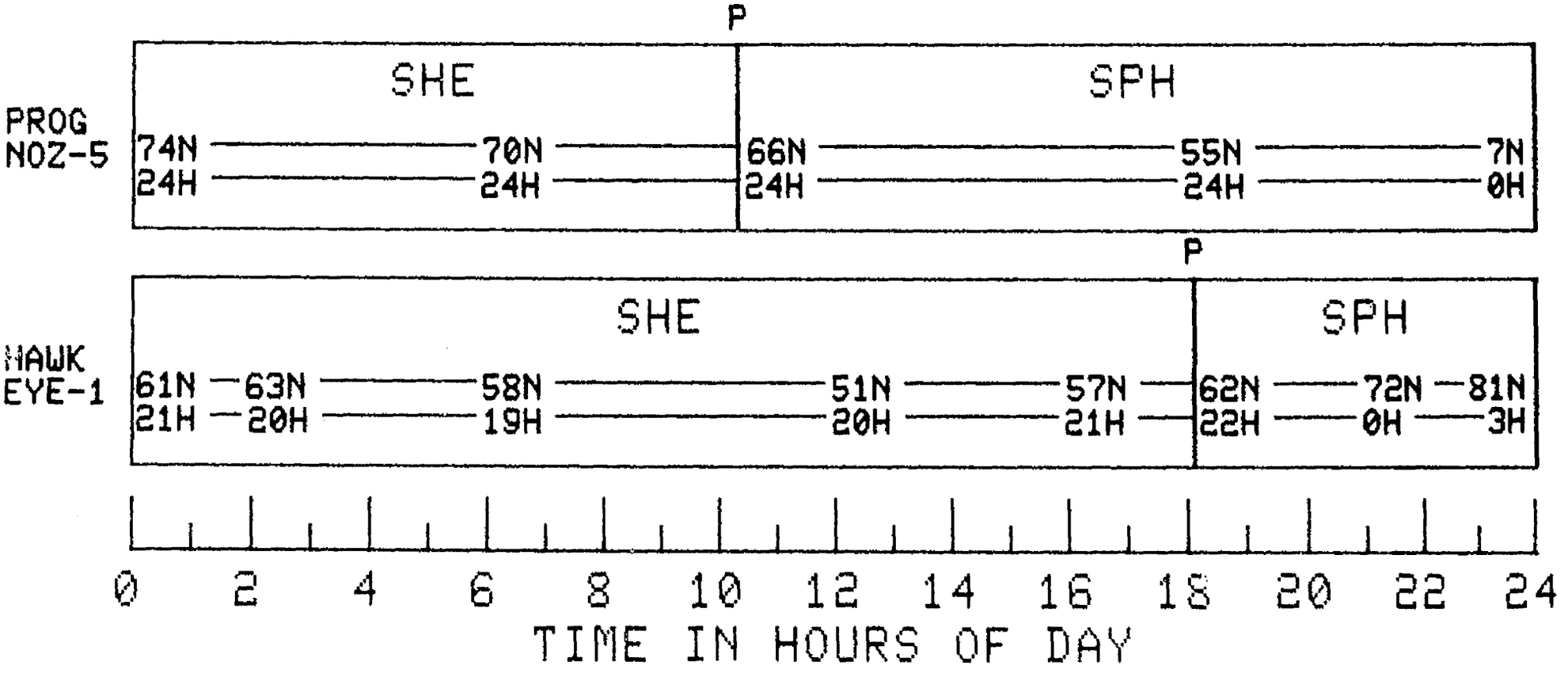

S
INP
SHE
PROG
NOZ-5
3r 2r 1r 0r
85N 83N 80N 78N 74N
22H 23H 23H 23H 24H
P
SPH
SHE
HAWK
EYE-1
64N 33S 14N 22N 24N 29N 43N 51N 61N
7H 20H 20H 20H 20H 20H 21H 21H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

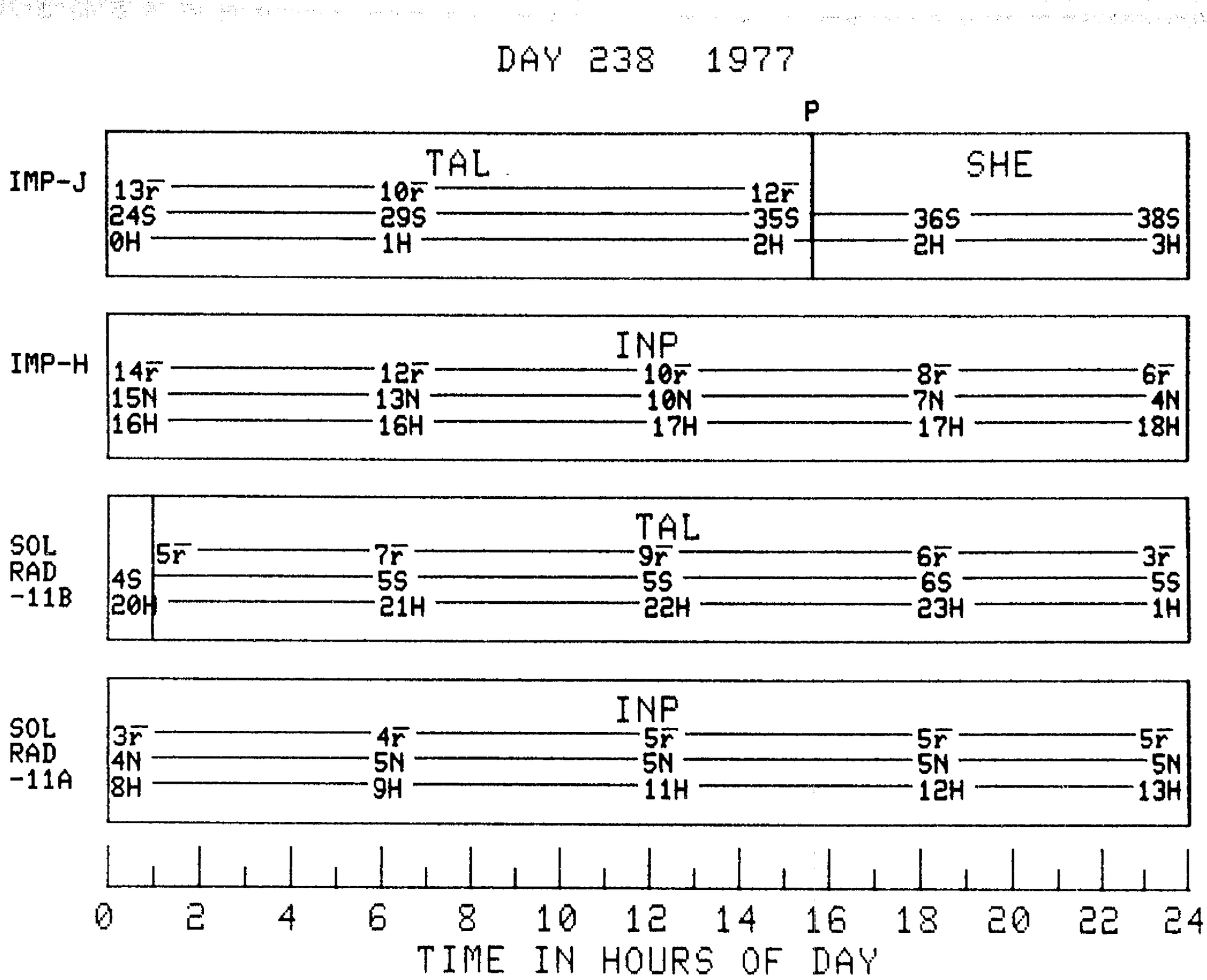
DAY 237 1977


IMP-J
TAL
4r 8r 12r 14r 13r
1S 7S 13S 19S 24S
22H 23H 23H 24H 0H
IMP-H
INP
18r 18r 17r 15r 14r
22N 21N 19N 17N 15N
14H 14H 15H 15H 16H
S
P
SOL RAD -11B
INP
SHE
SPH
2r 1r 11r
3N 2N 0N 3S 4S
15H 16H 18H 19H 20H
P
S
SOL RAD -11A
SPH
SHE
INP
2S 1S 0r 1r 3r
4H 5H 2N 4N
7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

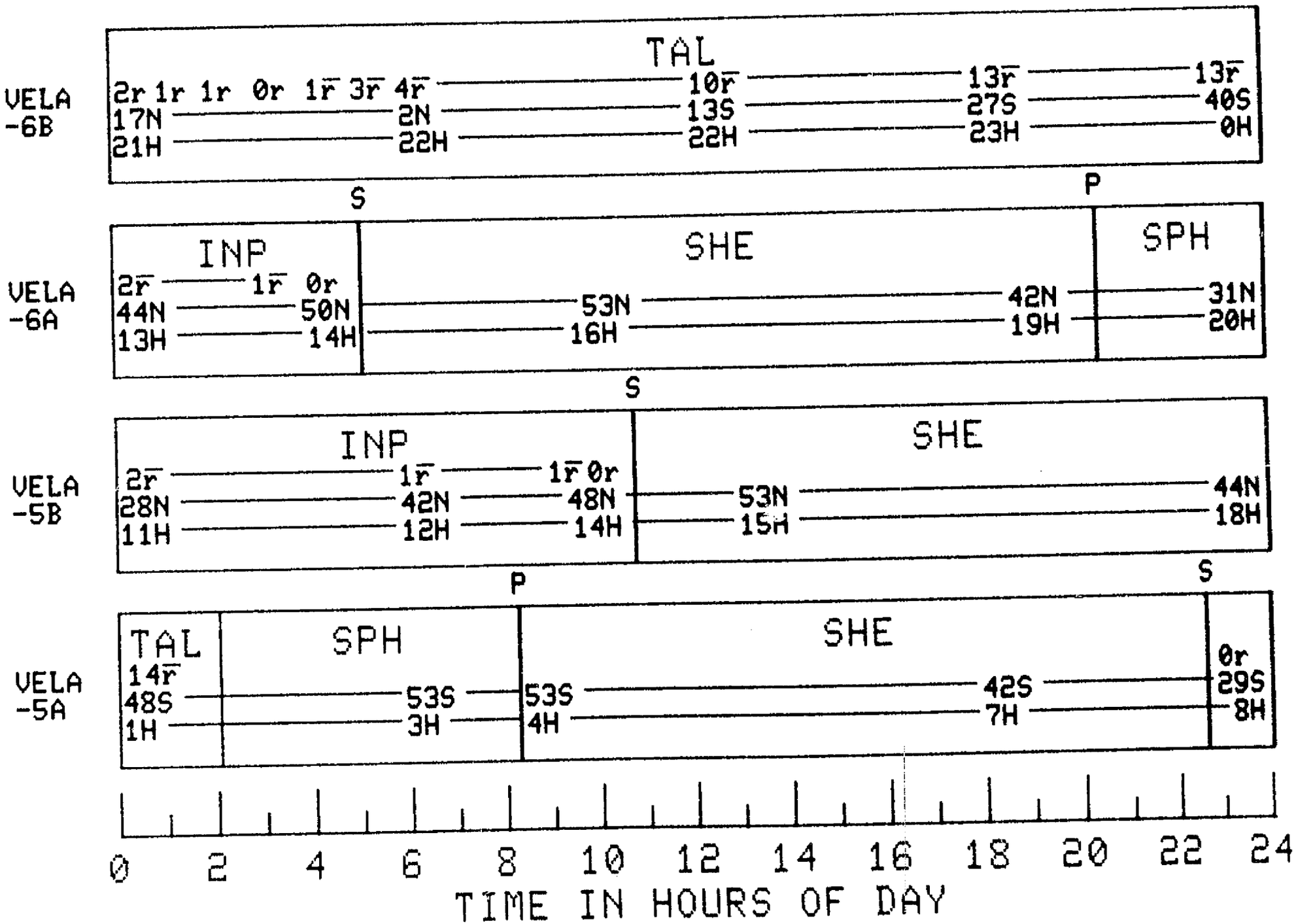

DAY 237 1977
P
SHE
SPH
TAL
2r 2r 2r
VELA -6B
51N 53N 42N 24N 17N
15H 16H 19H 20H 21H
INP
VELA -6A
3r 3r 3r 3r 2r
14S 2N 17N 32N 44N
9H 10H 11H 12H 13H
S
INP
VELA -5B
0r 0r 0r 1r 2r 2r 3r 2r
35S 21S 5S 12N 28N
8H 9H 9H 10H 11H
TAL
VELA -5A
2r 3r 7r 12r 15r 15r
3N 12S 26S 38S 48S
21H 22H 23H 24H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 237 1977

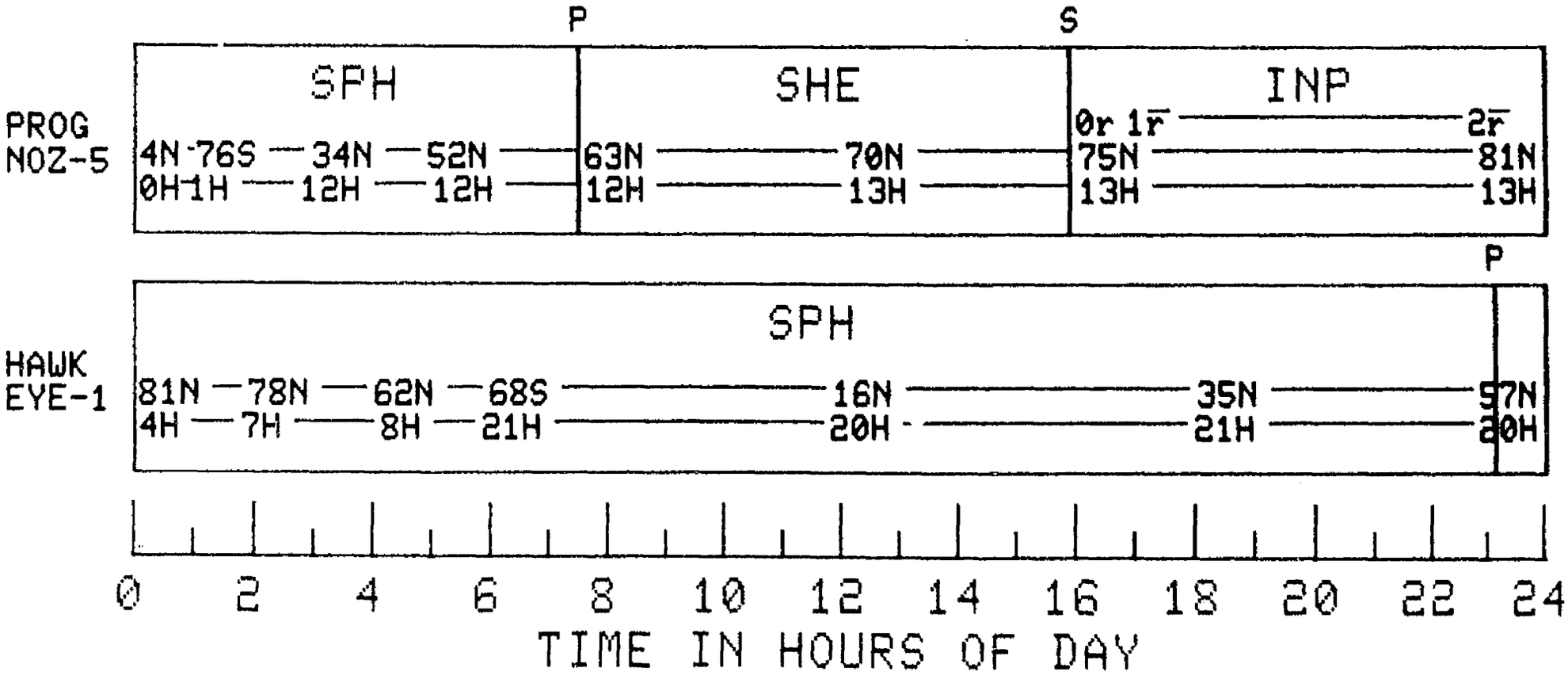

P
SHE
SPH
PROG
NOZ-5
74N
24H
70N
24H
66N
24H
55N
24H
7N
0H
P
SHE
SPH
HAWK
EYE-1
61N
21H
63N
20H
58N
19H
51N
20H
57N
21H
62N
22H
72N
0H
81N
3H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 238 1977
P
IMP-J
TAL
SHE
13r 10r 12r
24S 29S 35S 36S 38S
0H 1H 2H 2H 3H
IMP-H
INP
14r 12r 10r 8r 6r
15N 13N 10N 7N 4N
16H 16H 17H 17H 18H
SOL RAD -11B
TAL
5r 7r 9r 6r 3r
4S 5S 5S 6S 5S
20H 21H 22H 23H 1H
SOL RAD -11A
INP
3r 4r 5r 5r 5r
4N 5N 5N 5N 5N
8H 9H 11H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

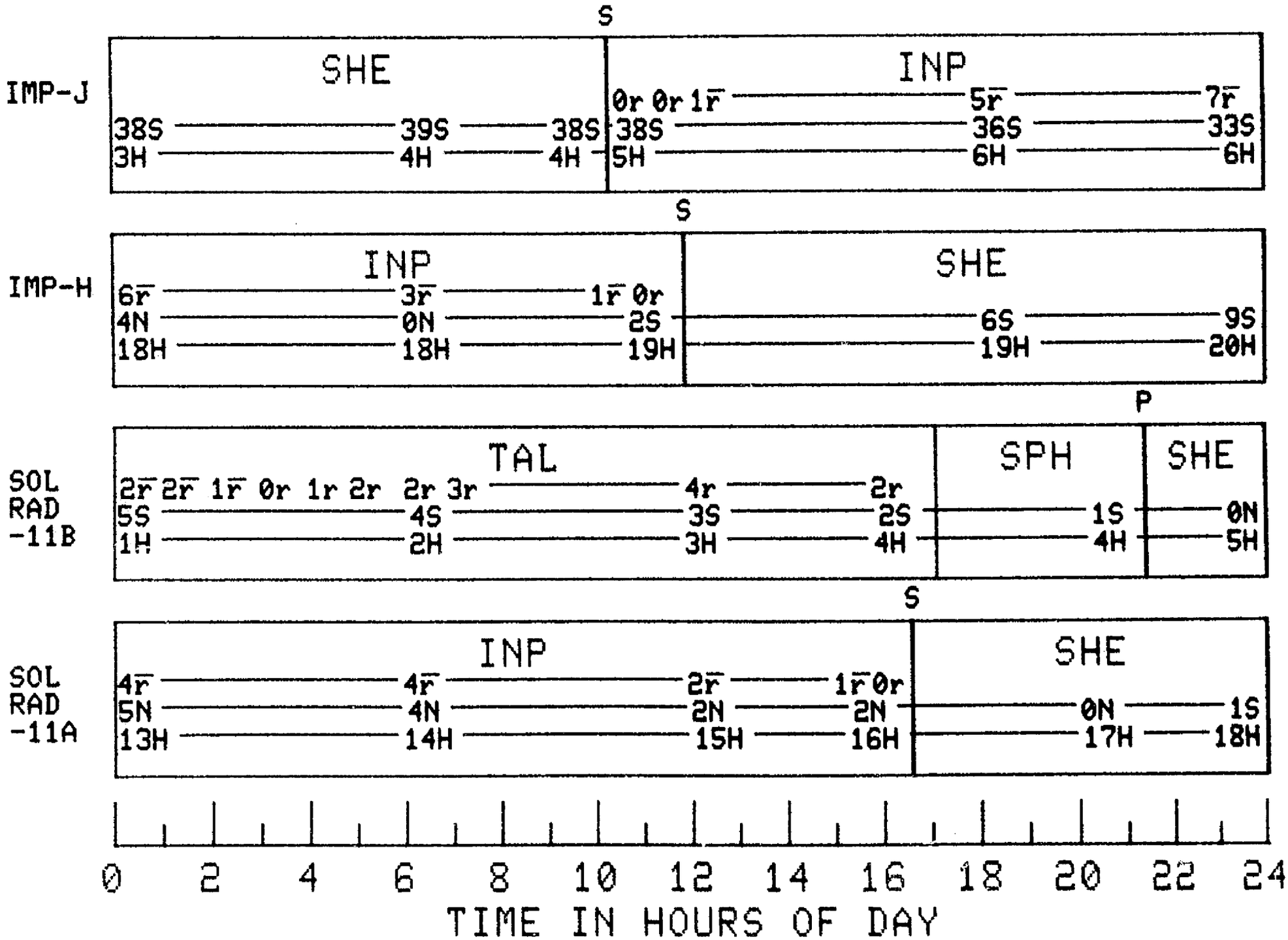
DAY 238 1977


VELA -6B
TAL
2r 1r 1r 0r 1r 3r 4r
17N 2N
21H 22H
10r
13S
22H
13r
27S
23H
13r
40S
0H
VELA -6A
S
P
INP
2r 1r 0r
44N 50N
13H 14H
SHE
53N
16H
42N
19H
SPH
31N
20H
VELA -5B
S
INP
2r 1r 1r 0r
28N 42N 48N
11H 12H 14H
SHE
53N
15H
44N
18H
VELA -5A
P
S
TAL
14r
48S
1H
SPH
53S
3H
SHE
53S
4H
42S
7H
0r
29S
8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

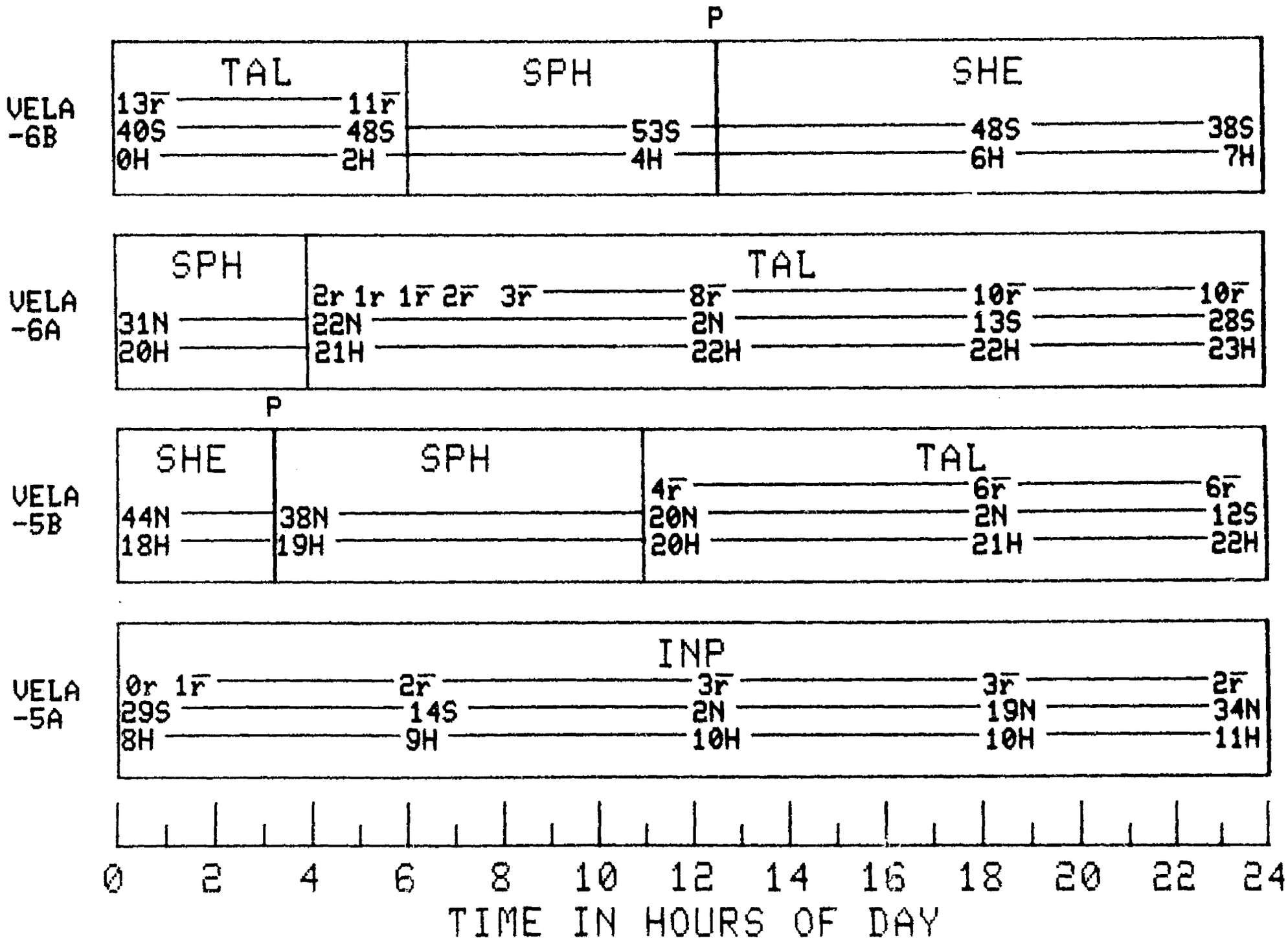
DAY 238 1977


P
S
SPH
SHE
INP
PROG
NOZ-5
4N 76S 34N 52N
0H 1H 12H 12H
63N 70N
12H 13H
0r 1r̄ 2r̄
75N 81N
13H 13H
P
SPH
HAWK
EYE-1
81N 78N 62N 68S 16N 35N 57N
4H 7H 8H 21H 20H 21H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

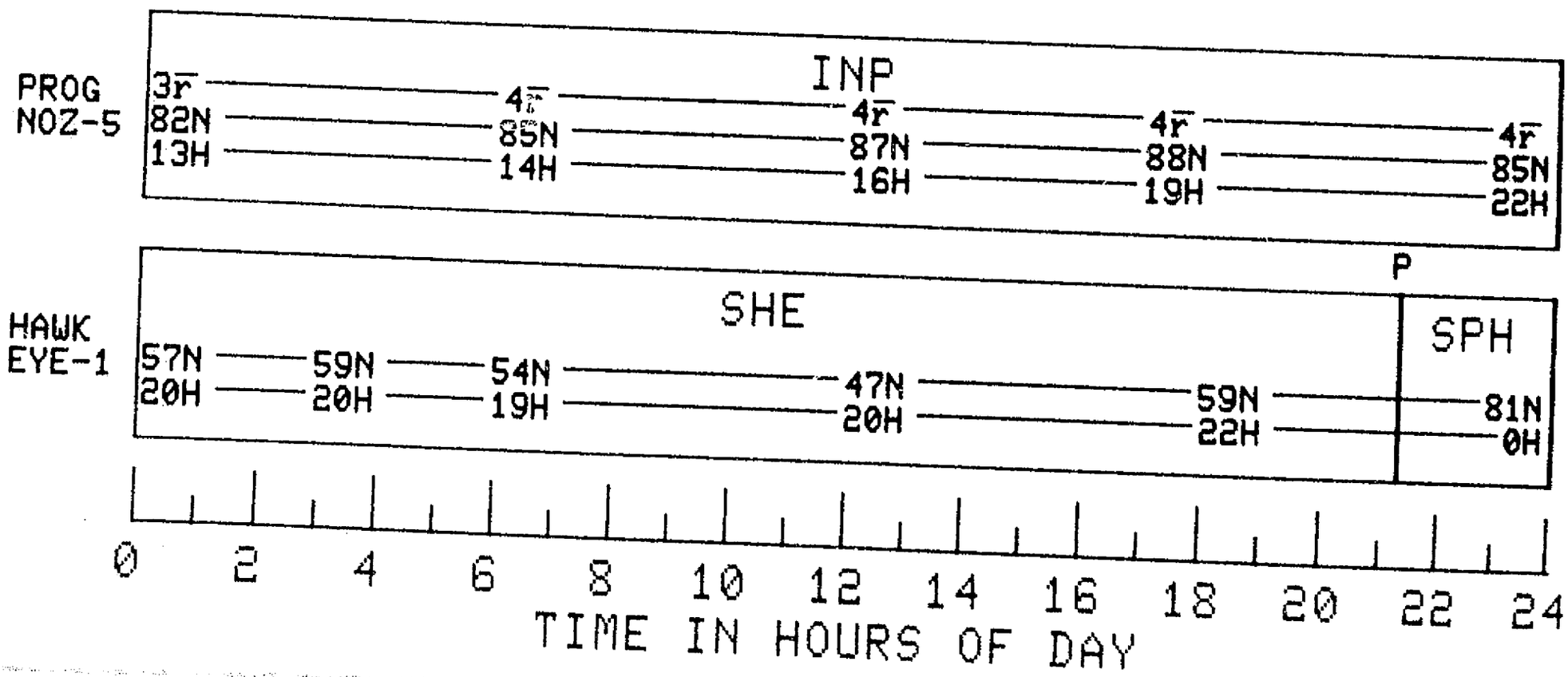
DAY 239 1977


IMP-J
S
SHE
INP
38S 39S 38S
3H 4H 4H
0r 0r 1r 5r 7r
38S 36S 33S
5H 6H 6H
IMP-H
S
INP
SHE
6r 3r 1r 0r
4N 0N 2S 6S 9S
18H 18H 19H 19H 20H
SOL RAD -11B
P
TAL
SPH
SHE
2r 2r 1r 0r 1r 2r 2r 3r 4r 2r
5S 4S 3S 2S 1S 0N
1H 2H 3H 4H 4H 5H
SOL RAD -11A
S
INP
SHE
4r 4r 2r 1r 0r
5N 4N 2N 2N 0N 1S
13H 14H 15H 16H 17H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

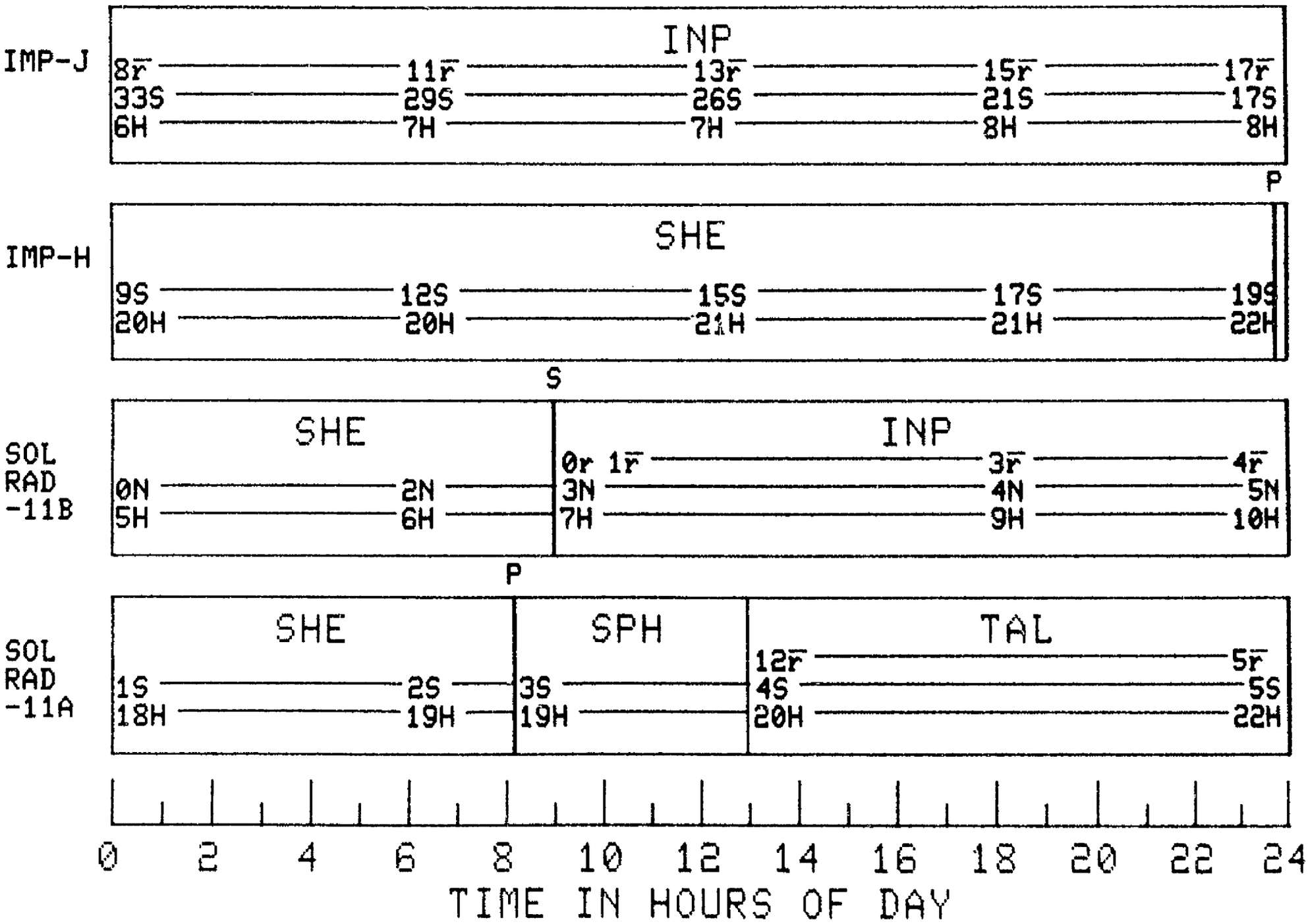
DAY 239 1977


P
VELA -6B
TAL
SPH
SHE
13r̄ 11r̄
40S 48S 53S 48S 38S
0H 2H 4H 6H 7H
VELA -6A
SPH
TAL
2r 1r 1r̄ 2r̄ 3r̄ 8r̄ 10r̄ 10r̄
31N 22N 2N 13S 28S
20H 21H 22H 22H 23H
P
VELA -5B
SHE
SPH
TAL
4r̄ 6r̄ 6r̄
44N 38N 20N 2N 12S
18H 19H 20H 21H 22H
VELA -5A
INP
0r 1r̄ 2r̄ 3r̄ 3r̄ 2r̄
29S 14S 2N 19N 34N
8H 9H 10H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

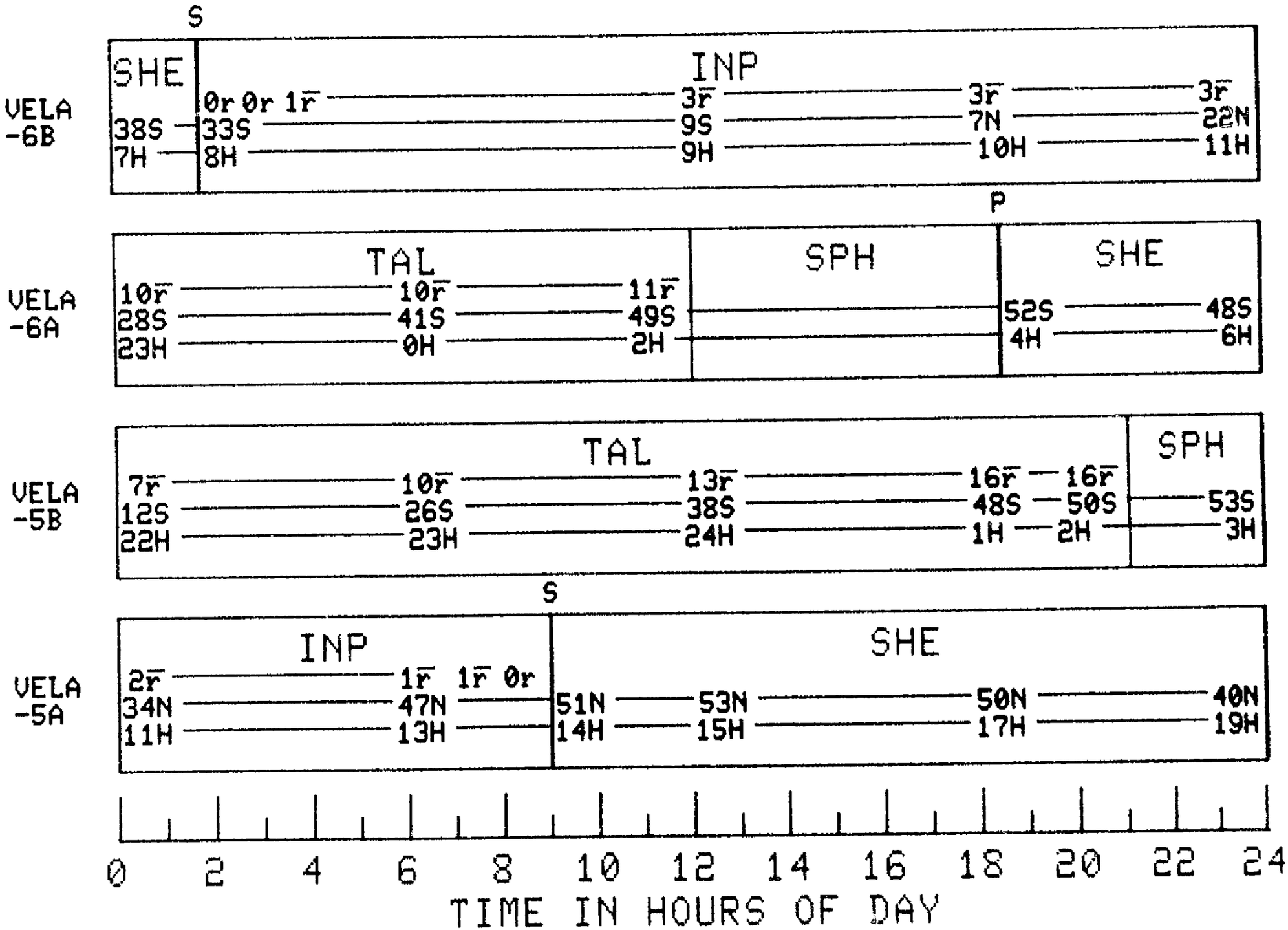
DAY 239 1977


PROG
NOZ-5
INP
3r̄
82N
13H
4r̄
85N
14H
4r̄
87N
16H
4r̄
88N
19H
4r̄
85N
22H
HAWK
EYE-1
SHE
57N
20H
59N
20H
54N
19H
47N
20H
59N
22H
P
SPH
81N
0H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

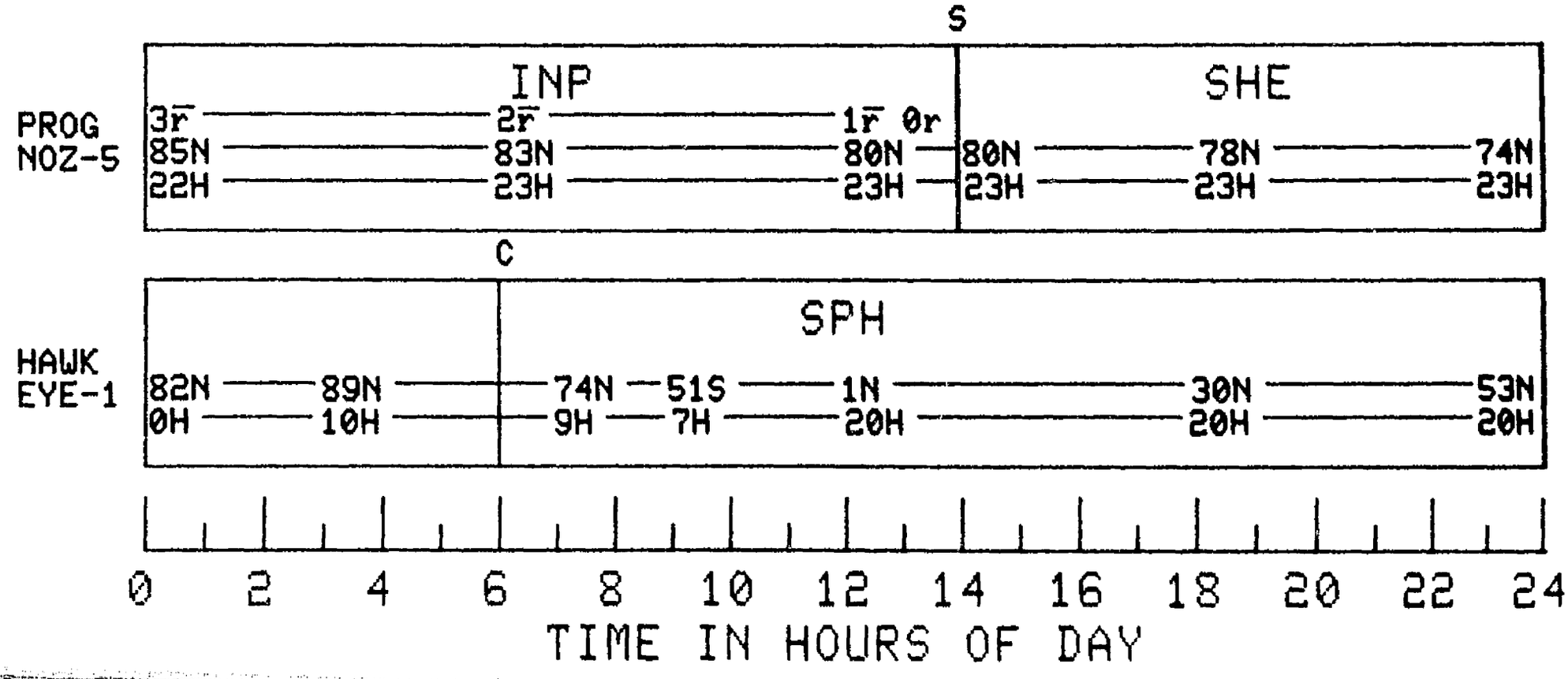
DAY 240 1977


IMP-J
INP
8r 11r 13r 15r 17r
33S 29S 26S 21S 17S
6H 7H 7H 8H 8H
P
IMP-H
SHE
9S 12S 15S 17S 19S
20H 20H 21H 21H 22H
S
SOL RAD -11B
SHE
0N 2N
5H 6H
INP
0r 1r 3r 4r
3N 4N 5N
7H 9H 10H
P
SOL RAD -11A
SHE
1S 2S
18H 19H
SPH
3S
19H
TAL
12r 5r
4S 5S
20H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

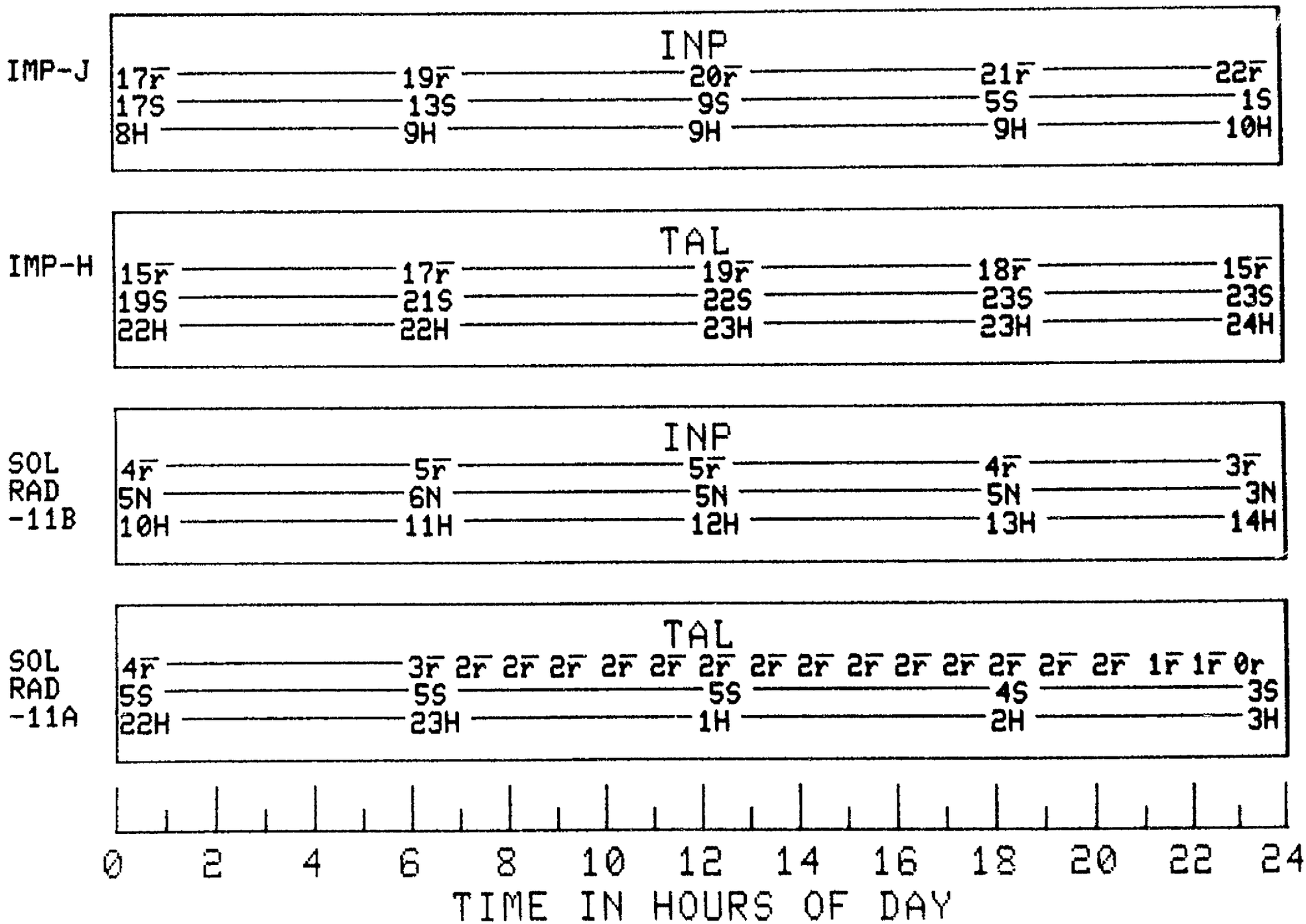
DAY 240 1977


S
SHE
INP
VELA -6B
38S 7H
0r 0r 1r
33S 8H
3r 9S 9H
3r 7N 10H
3r 22N 11H
P
TAL
SPH
SHE
VELA -6A
10r 28S 23H
10r 41S 0H
11r 49S 2H
52S 4H
48S 6H
TAL
SPH
VELA -5B
7r 12S 22H
10r 26S 23H
13r 38S 24H
16r 48S 1H
16r 50S 2H
53S 3H
S
INP
SHE
VELA -5A
2r 34N 11H
1r 47N 13H
1r 0r
51N 14H
53N 15H
50N 17H
40N 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

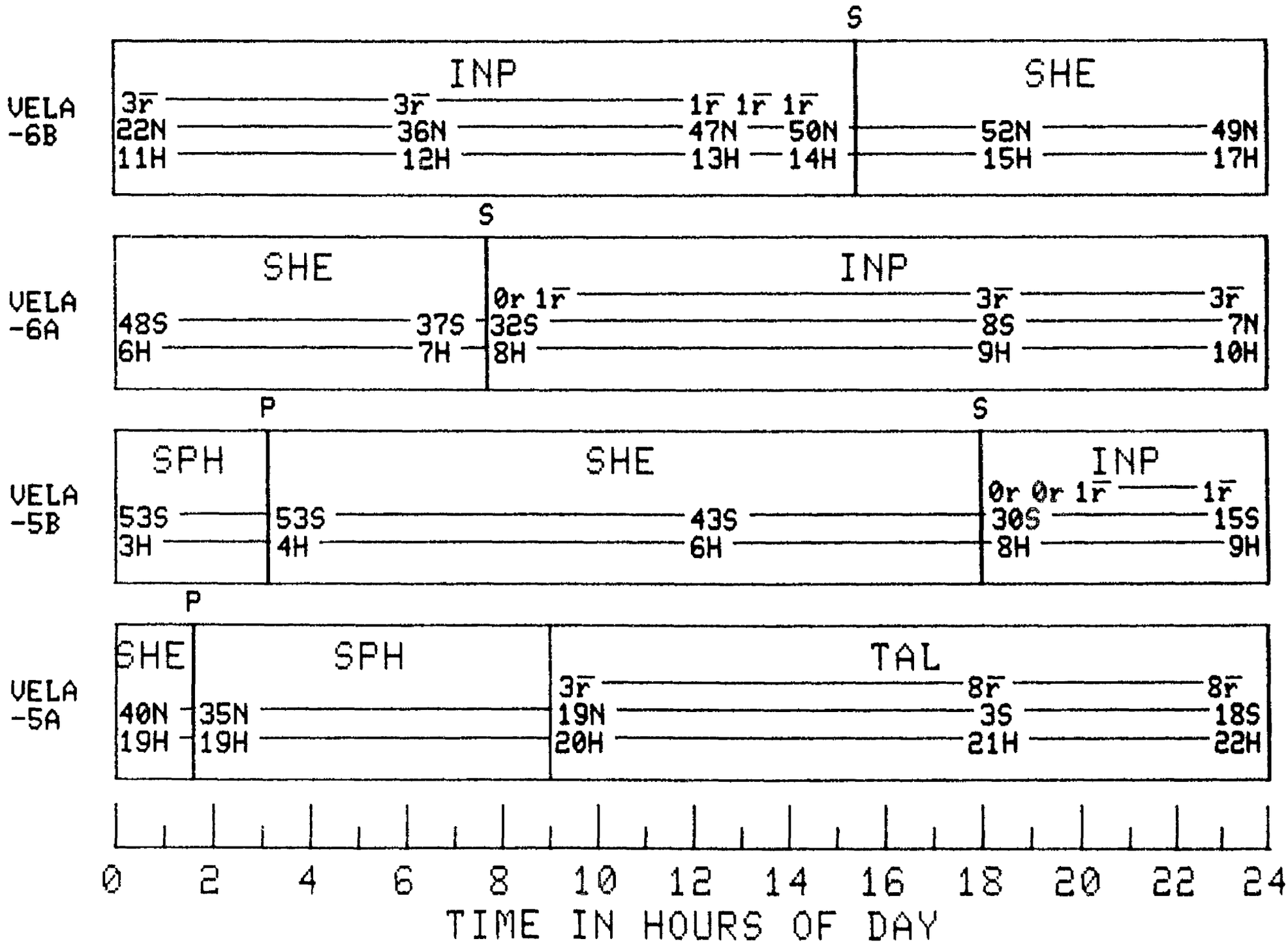
DAY 240 1977


S
INP
SHE
PROG
NOZ-5
3r 2r 1r 0r
85N 83N 80N 80N 78N 74N
22H 23H 23H 23H 23H 23H
C
SPH
HAWK
EYE-1
82N 89N 74N 51S 1N 30N 53N
0H 10H 9H 7H 20H 20H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

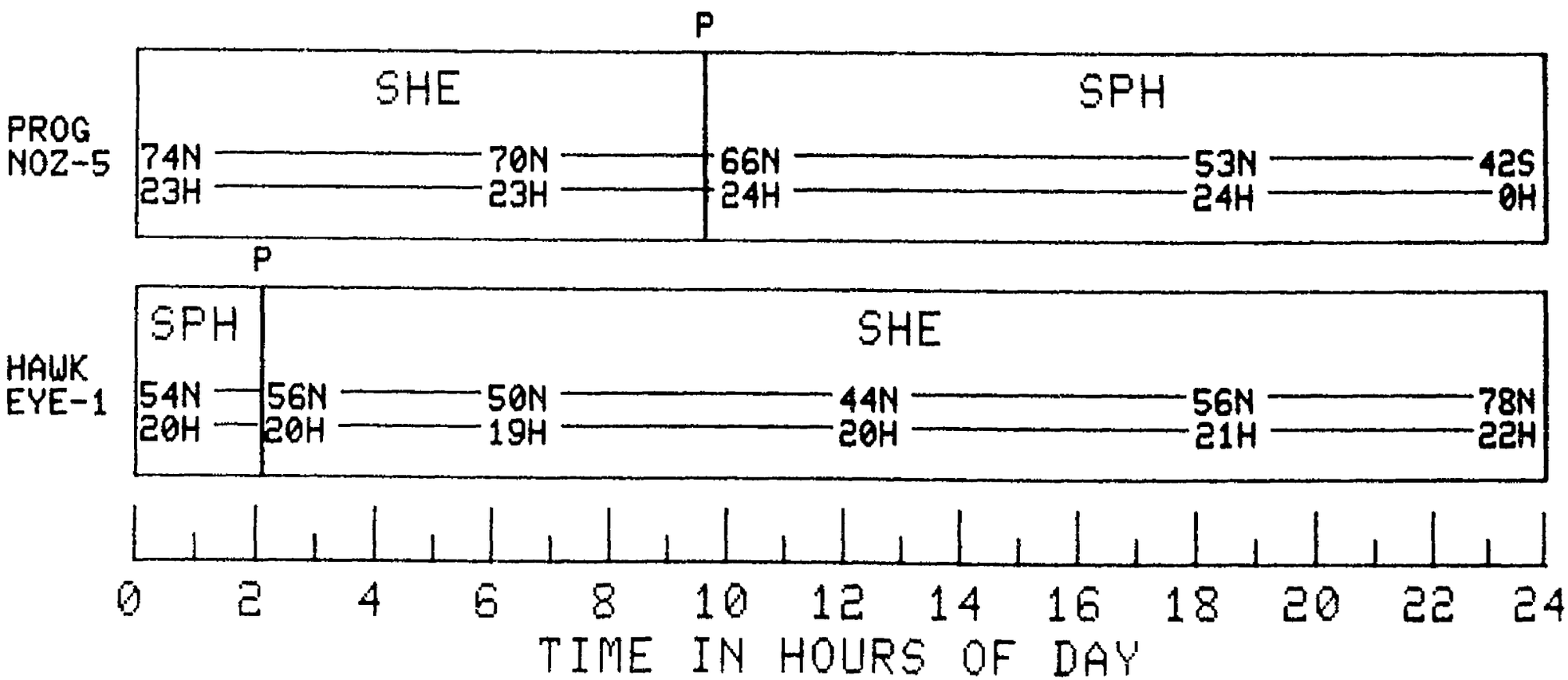
DAY 241 1977


IMP-J
INP
17r 19r 20r 21r 22r
17S 13S 9S 5S 1S
8H 9H 9H 9H 10H
IMP-H
TAL
15r 17r 19r 18r 15r
19S 21S 22S 23S 23S
22H 22H 23H 23H 24H
SOL RAD -11B
INP
4r 5r 5r 4r 3r
5N 6N 5N 5N 3N
10H 11H 12H 13H 14H
SOL RAD -11A
TAL
4r 3r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 1r 1r 0r
5S 5S 5S 4S 3S
22H 23H 1H 2H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

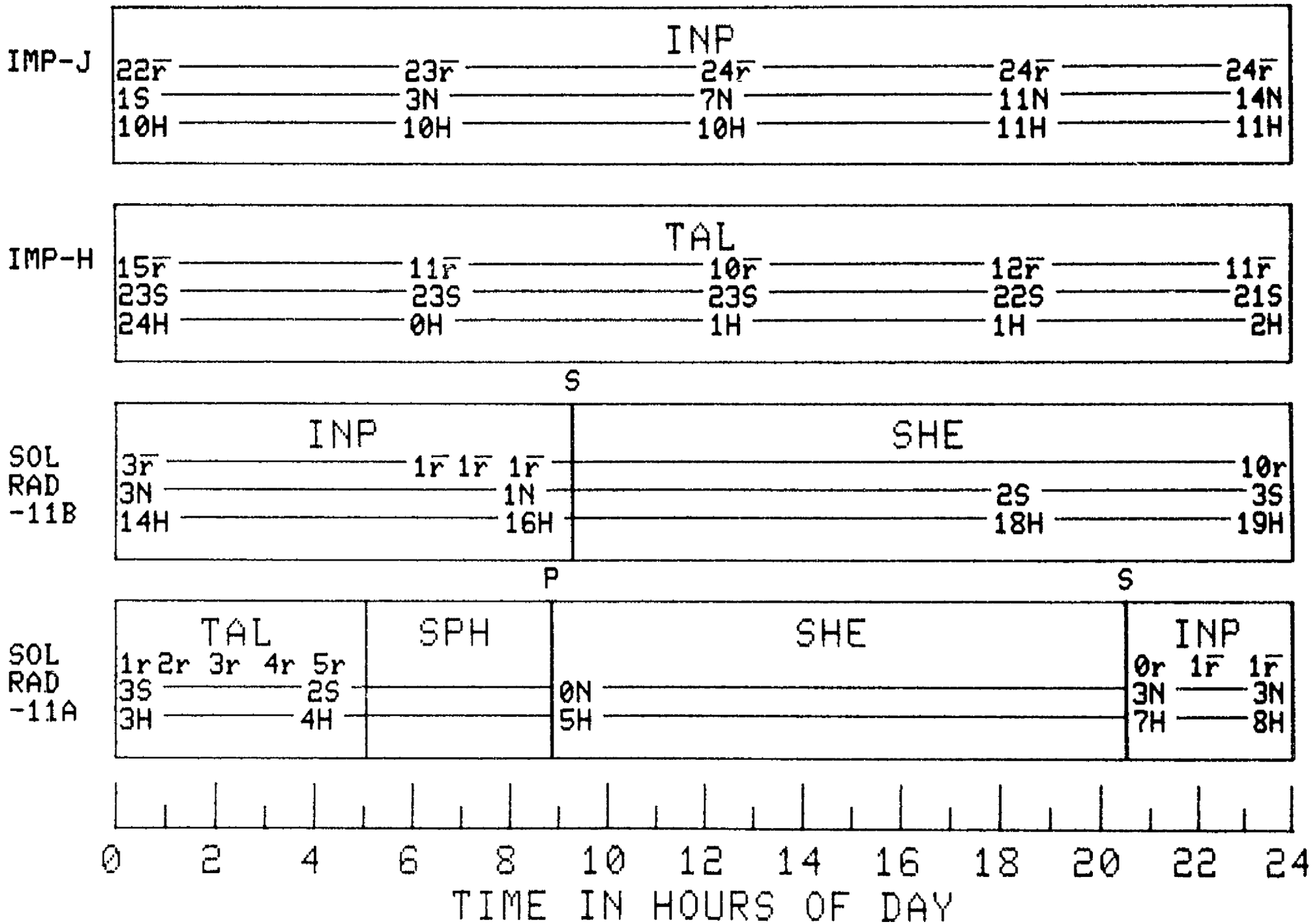
DAY 241 1977

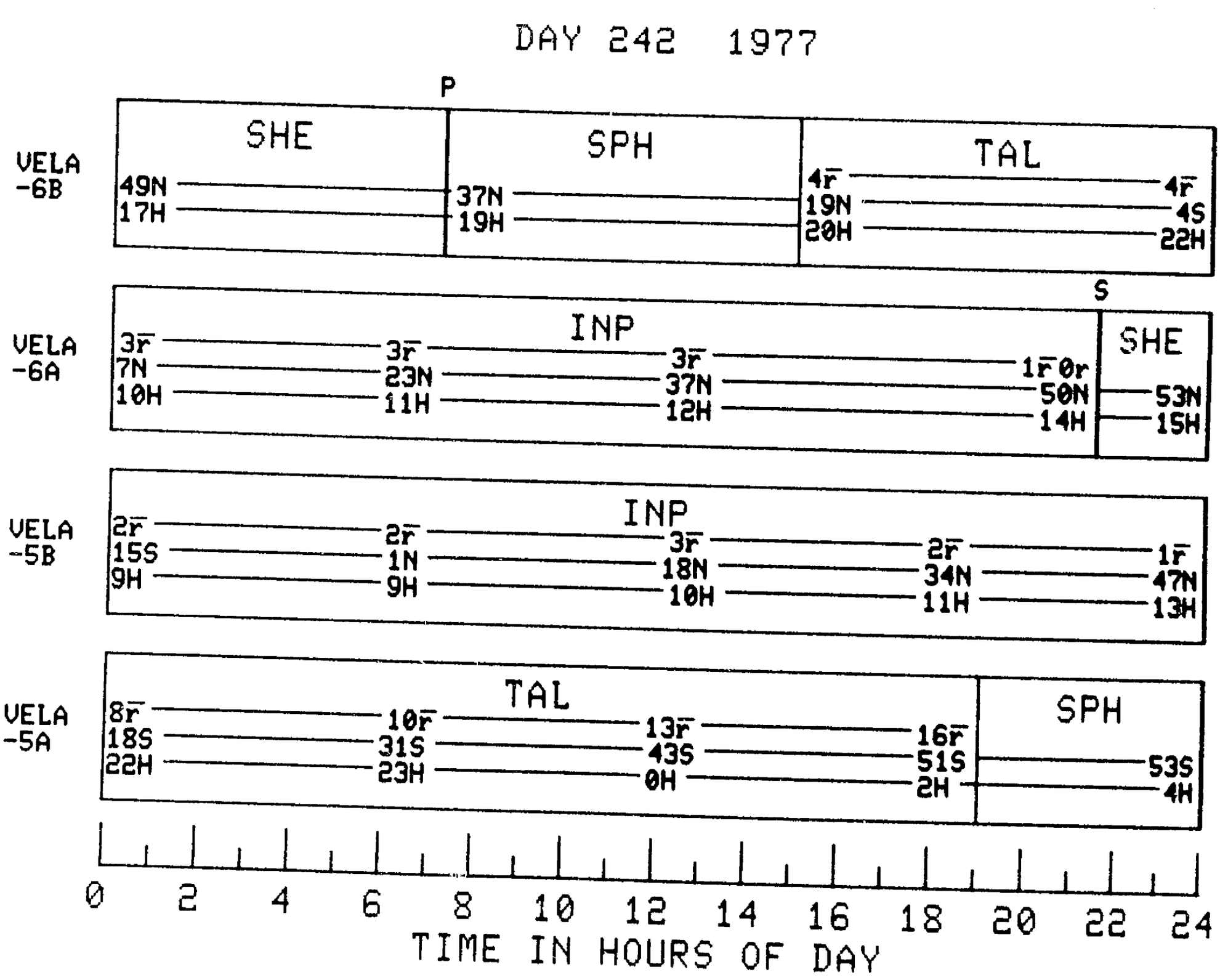

S
INP
SHE
VELA -6B
3r 3r 1r 1r 1r
22N 36N 47N 50N 52N 49N
11H 12H 13H 14H 15H 17H
S
SHE
INP
VELA -6A
48S 37S
6H 7H
0r 1r 3r 3r
32S 8S 7N
8H 9H 10H
P
S
SPH
SHE
INP
VELA -5B
53S 53S 43S
3H 4H 6H
0r 0r 1r 1r
30S 15S
8H 9H
P
SHE
SPH
TAL
VELA -5A
40N 35N
19H 19H
3r 8r 8r
19N 3S 18S
20H 21H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 241 1977

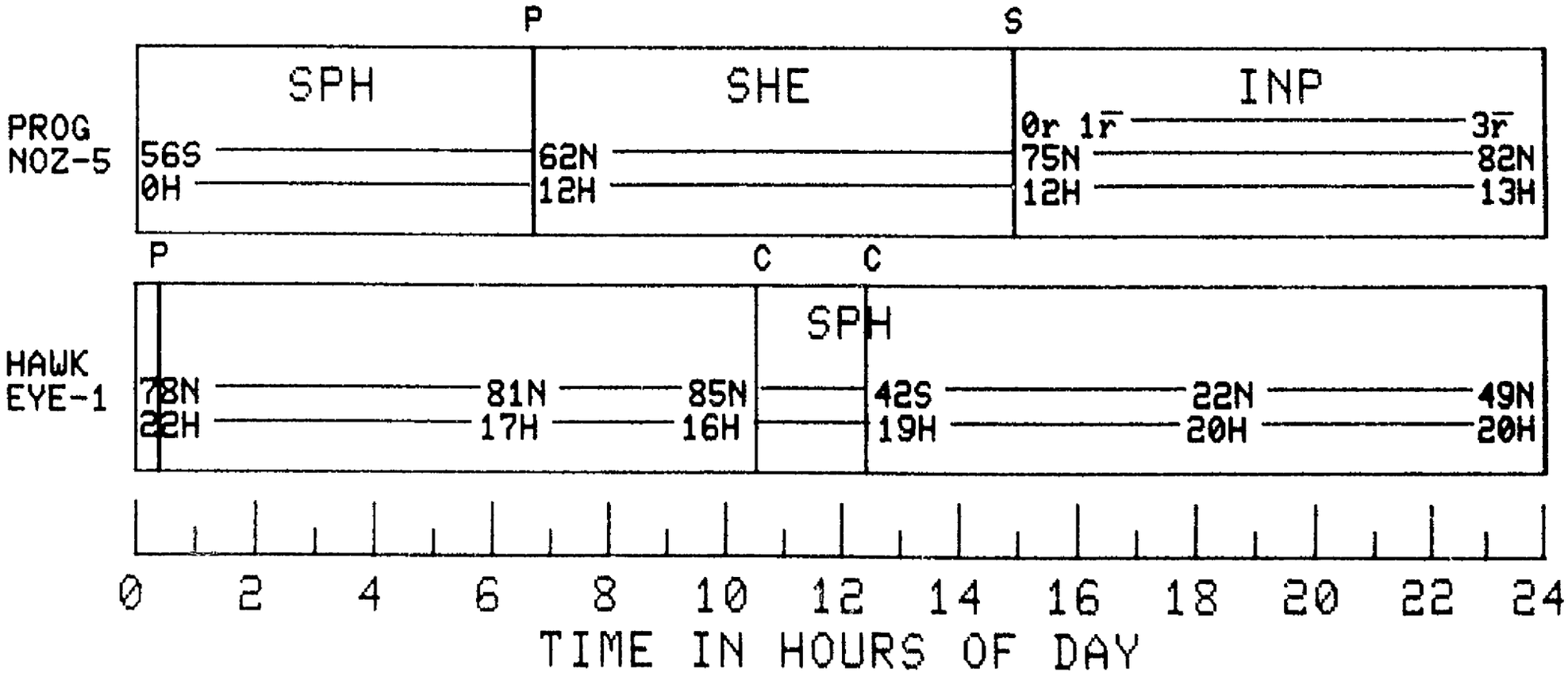

P
SHE
SPH
PROG
NOZ-5
74N
23H
70N
23H
66N
24H
53N
24H
42S
0H
P
SPH
SHE
HAWK
EYE-1
54N
20H
56N
20H
50N
19H
44N
20H
56N
21H
78N
22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 242 1977

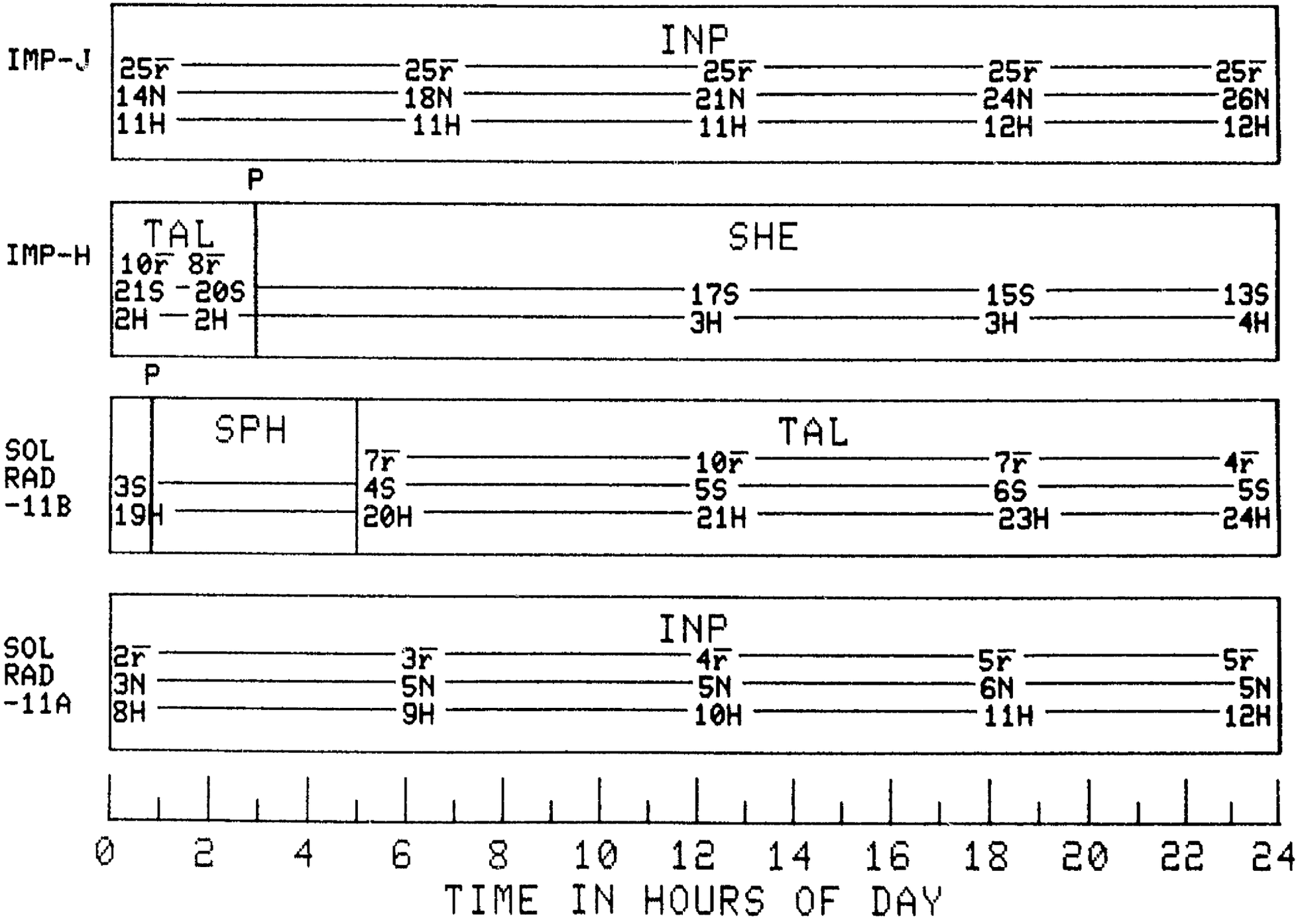

IMP-J
INP
22r 23r 24r 24r 24r
1S 3N 7N 11N 14N
10H 10H 10H 11H 11H
IMP-H
TAL
15r 11r 10r 12r 11r
23S 23S 23S 22S 21S
24H 0H 1H 1H 2H
S
SOL RAD -11B
INP
SHE
3r 1r 1r 1r 10r
3N 1N 2S 3S
14H 16H 18H 19H
P
S
SOL RAD -11A
TAL
SPH
SHE
INP
1r 2r 3r 4r 5r
0r 1r 1r
3S 2S 0N 3N 3N
3H 4H 5H 7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 242 1977
P
S
VELA -6B
SHE
SPH
TAL
49N
17H
37N
19H
4r
19N
20H
4r
4S
22H
VELA -6A
INP
SHE
3r
7N
10H
3r
23N
11H
3r
37N
12H
1r 0r
50N
14H
53N
15H
VELA -5B
INP
2r
15S
9H
2r
1N
9H
3r
18N
10H
2r
34N
11H
1r
47N
13H
VELA -5A
TAL
SPH
8r
18S
22H
10r
31S
23H
13r
43S
0H
16r
51S
2H
53S
4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

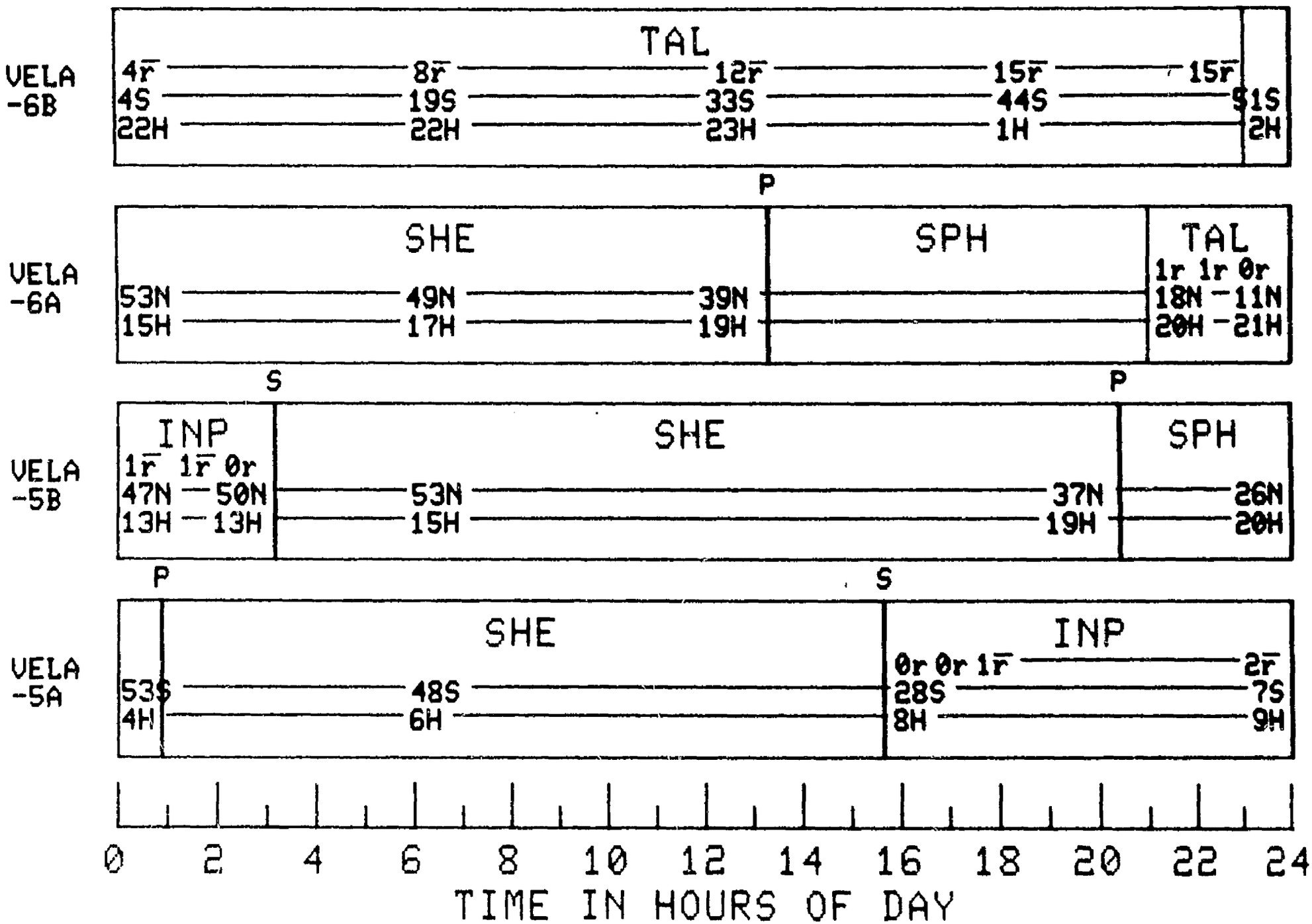
DAY 242 1977


P
S
SPH
SHE
INP
PROG
NOZ-5
56S
0H
62N
12H
0r 1r
3r
75N
82N
12H
13H
P
C
C
SPH
HAWK
EYE-1
78N
22H
81N
17H
85N
16H
42S
19H
22N
20H
49N
20H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

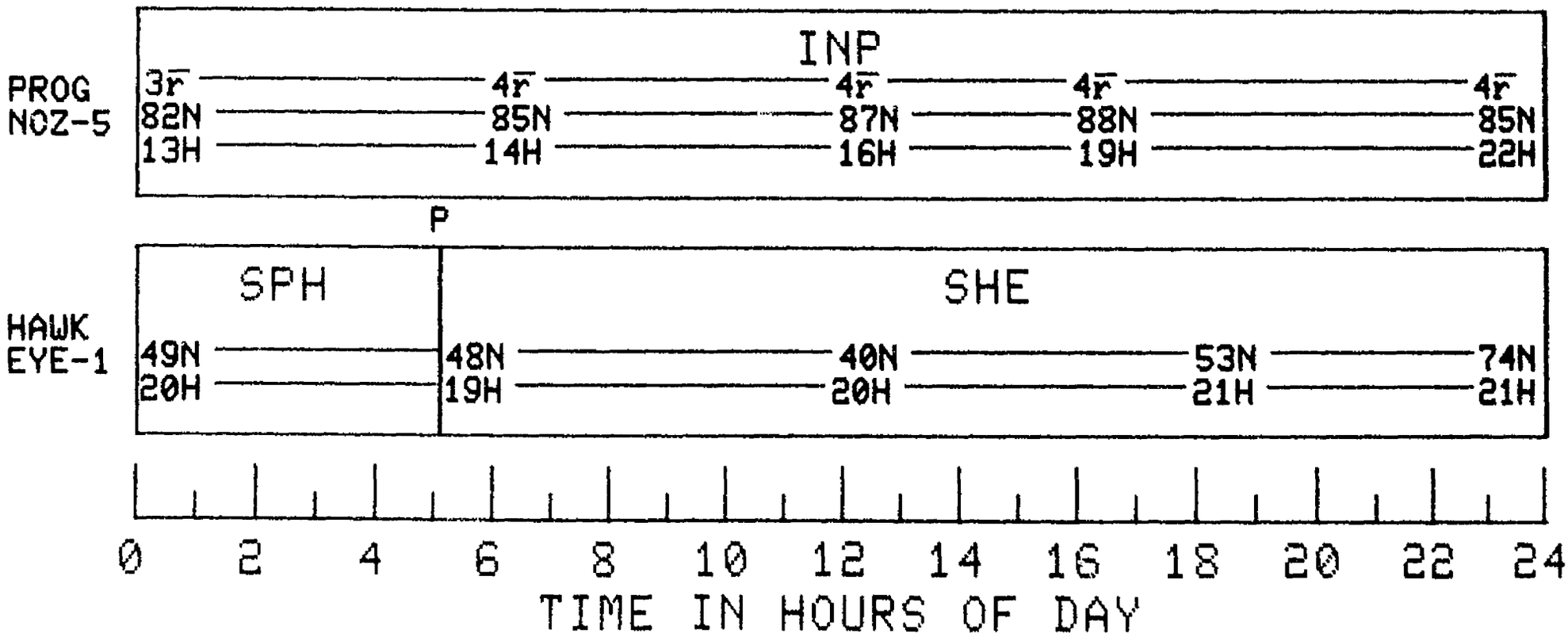
DAY 243 1977


IMP-J
INP
25r 25r 25r 25r 25r
14N 18N 21N 24N 26N
11H 11H 11H 12H 12H
P
IMP-H
TAL
10r 8r
21S 20S
2H 2H
SHE
17S 15S 13S
3H 3H 4H
P
SOL RAD -11B
SPH
3S
19H
TAL
7r 10r 7r 4r
4S 5S 6S 5S
20H 21H 23H 24H
SOL RAD -11A
INP
2r 3r 4r 5r 5r
3N 5N 5N 6N 5N
8H 9H 10H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

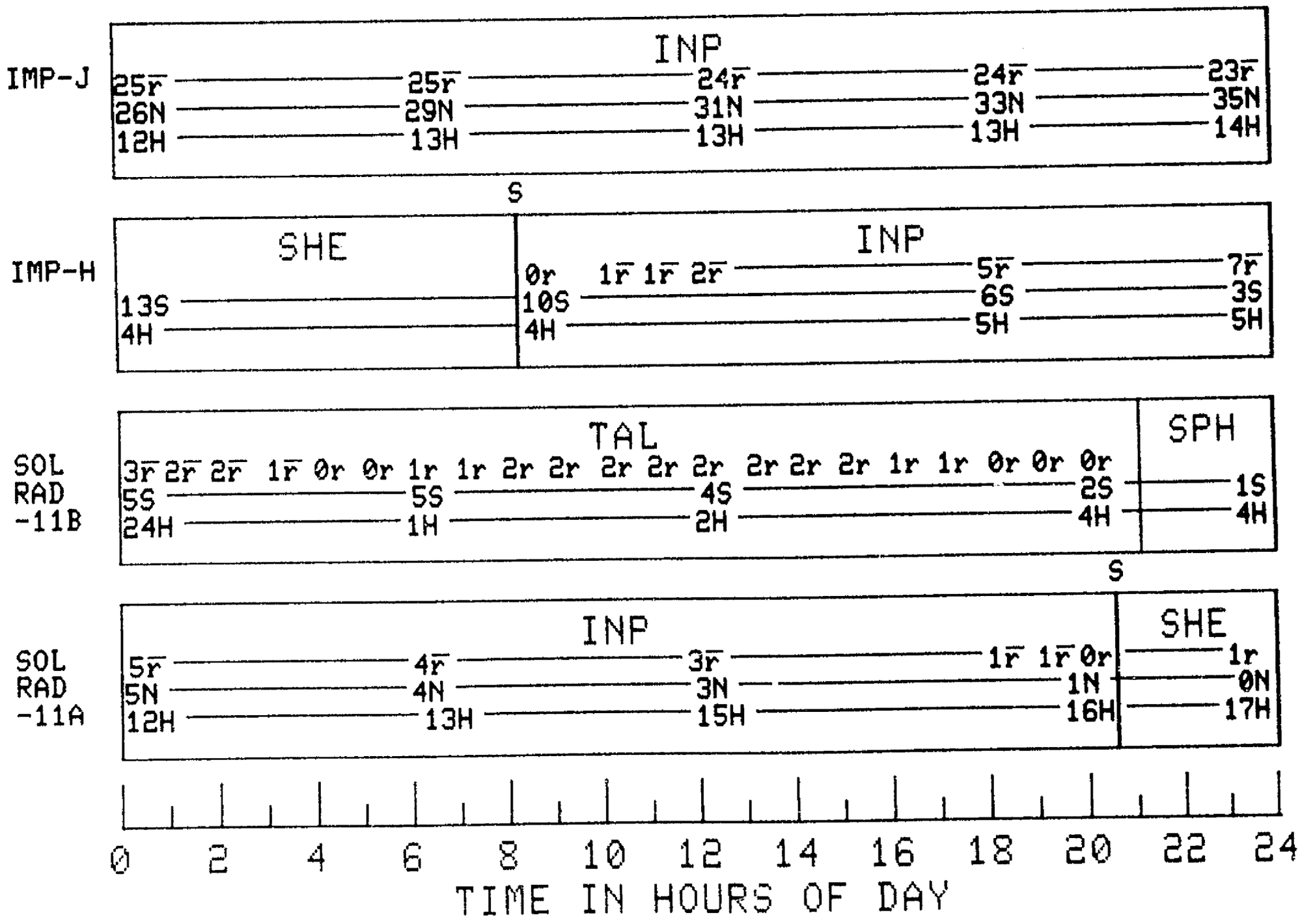
DAY 243 1977


VELA -6B
TAL
4r̄ 8r̄ 12r̄ 15r̄ 15r̄
4S 19S 33S 44S 51S
22H 22H 23H 1H 2H
P
VELA -6A
SHE
SPH
TAL
1r 1r 0r
53N 49N 39N 18N 11N
15H 17H 19H 20H 21H
S
P
VELA -5B
INP
SHE
SPH
1r̄ 1r̄ 0r
47N 50N 53N 37N 26N
13H 13H 15H 19H 20H
P
S
VELA -5A
SHE
INP
0r 0r 1r̄ 2r̄
53S 48S 28S 7S
4H 6H 8H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

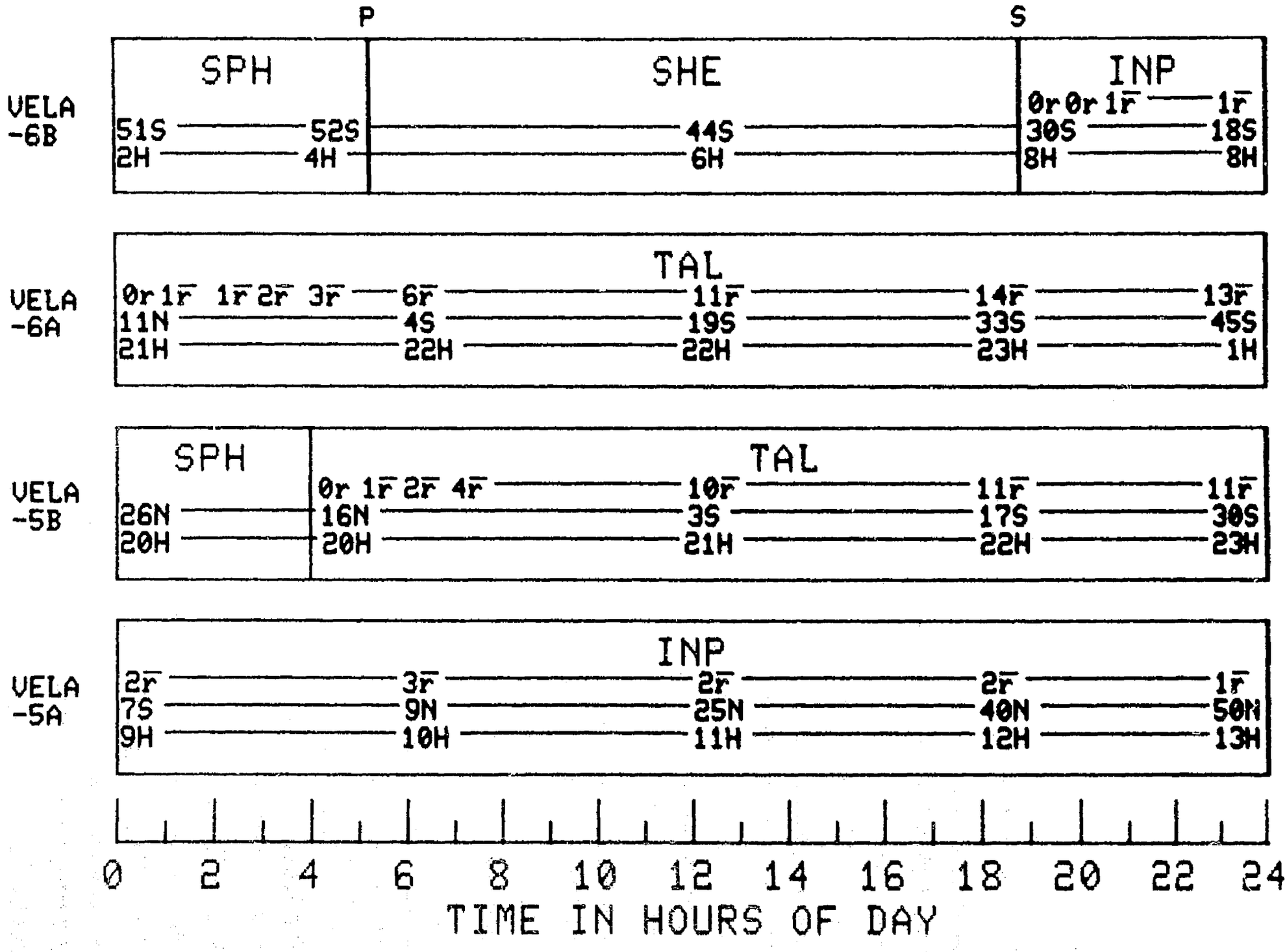
DAY 243 1977


INP
PROG
NOZ-5
3r̄
82N
13H
4r̄
85N
14H
4r̄
87N
16H
4r̄
88N
19H
4r̄
85N
22H
P
SPH
SHE
HAWK
EYE-1
49N
20H
48N
19H
40N
20H
53N
21H
74N
21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

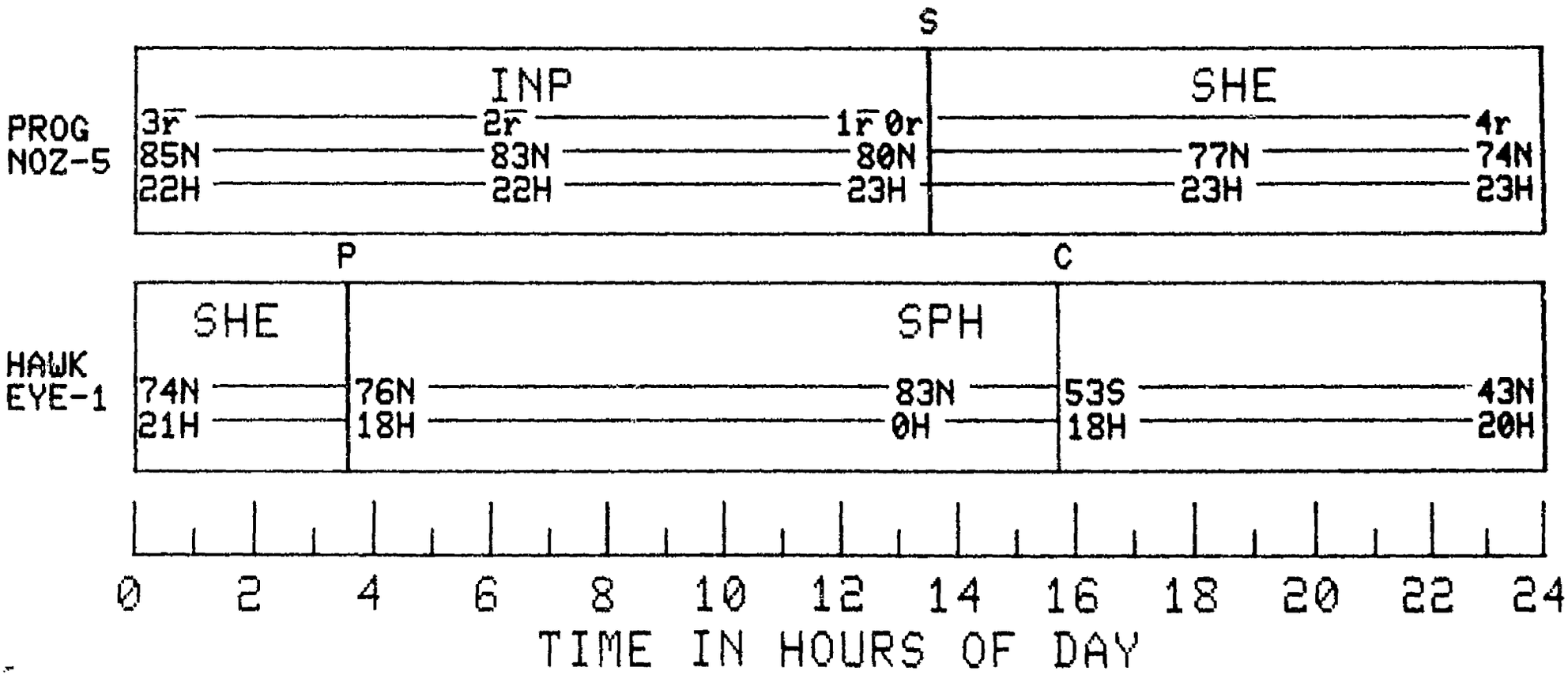
DAY 244 1977


IMP-J
INP
25r 25r 24r 24r 23r
26N 29N 31N 33N 35N
12H 13H 13H 13H 14H
S
IMP-H
SHE
13S
4H
INP
0r 1r 1r 2r 5r 7r
10S 6S 3S
4H 5H 5H
SOL RAD -11B
TAL
SPH
3r 2r 2r 1r 0r 0r 1r 1r 2r 2r 2r 2r 2r 2r 2r 2r 1r 1r 0r 0r 0r
5S 5S 4S 2S 1S
24H 1H 2H 4H 4H
S
SOL RAD -11A
INP
SHE
5r 4r 3r 1r 1r 0r 1r
5N 4N 3N 1N 0N
12H 13H 15H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

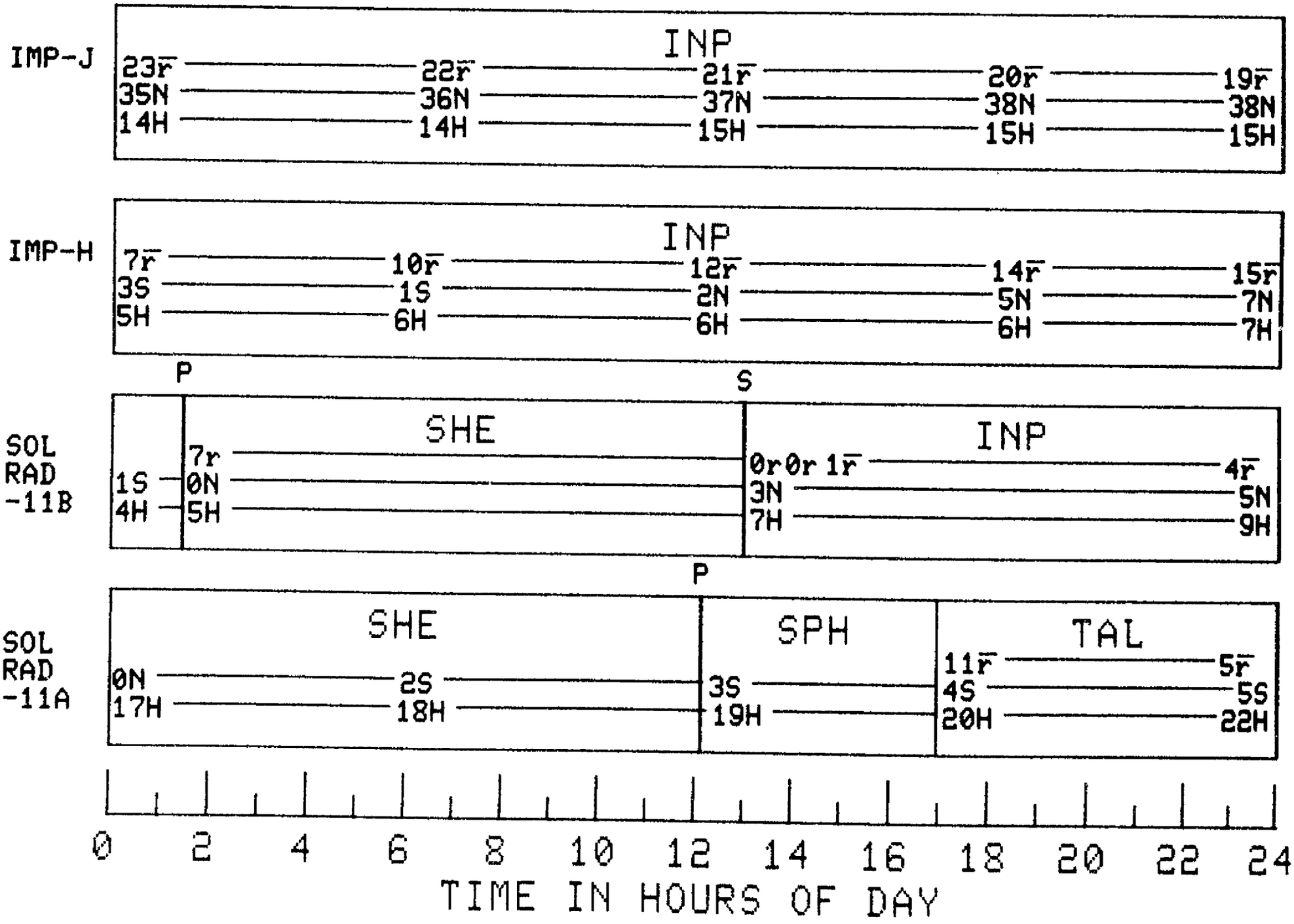
DAY 244 1977


P
S
VELA -6B
SPH
51S 52S
2H 4H
SHE
44S
6H
INP
0r 0r 1r 1r
30S 18S
8H 8H
VELA -6A
TAL
0r 1r 1r 2r 3r 6r 11r 14r 13r
11N 4S 19S 33S 45S
21H 22H 22H 23H 1H
VELA -5B
SPH
26N
20H
TAL
0r 1r 2r 4r 10r 11r 11r
16N 3S 17S 30S
20H 21H 22H 23H
VELA -5A
INP
2r 3r 2r 2r 1r
7S 9N 25N 40N 50N
9H 10H 11H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

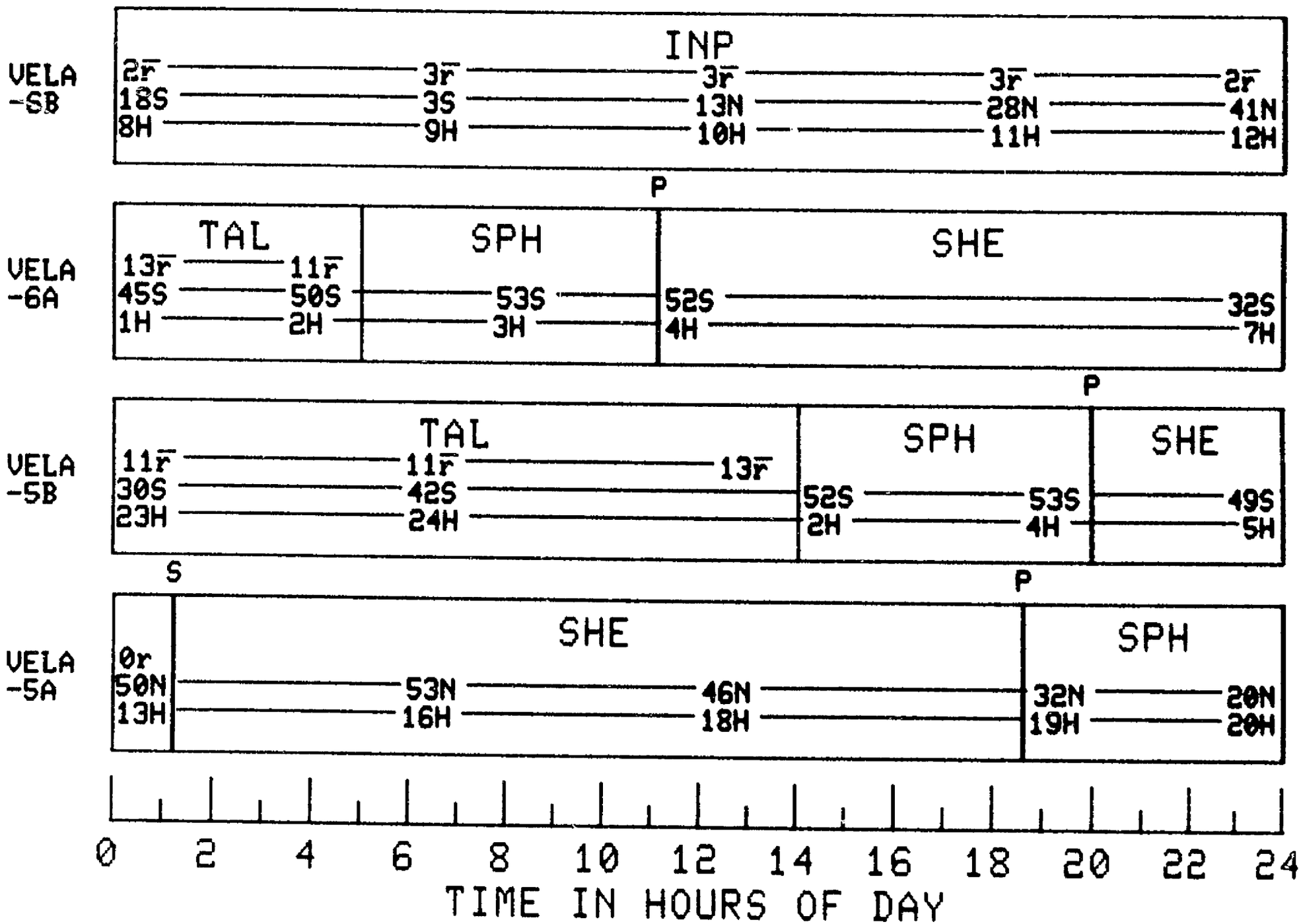
DAY 244 1977


S
INP
SHE
PROG
NOZ-5
3r
2r
1r 0r
4r
85N
83N
80N
77N
74N
22H
22H
23H
23H
23H
P
C
SHE
SPH
HAWK
EYE-1
74N
76N
83N
53S
43N
21H
18H
0H
18H
20H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

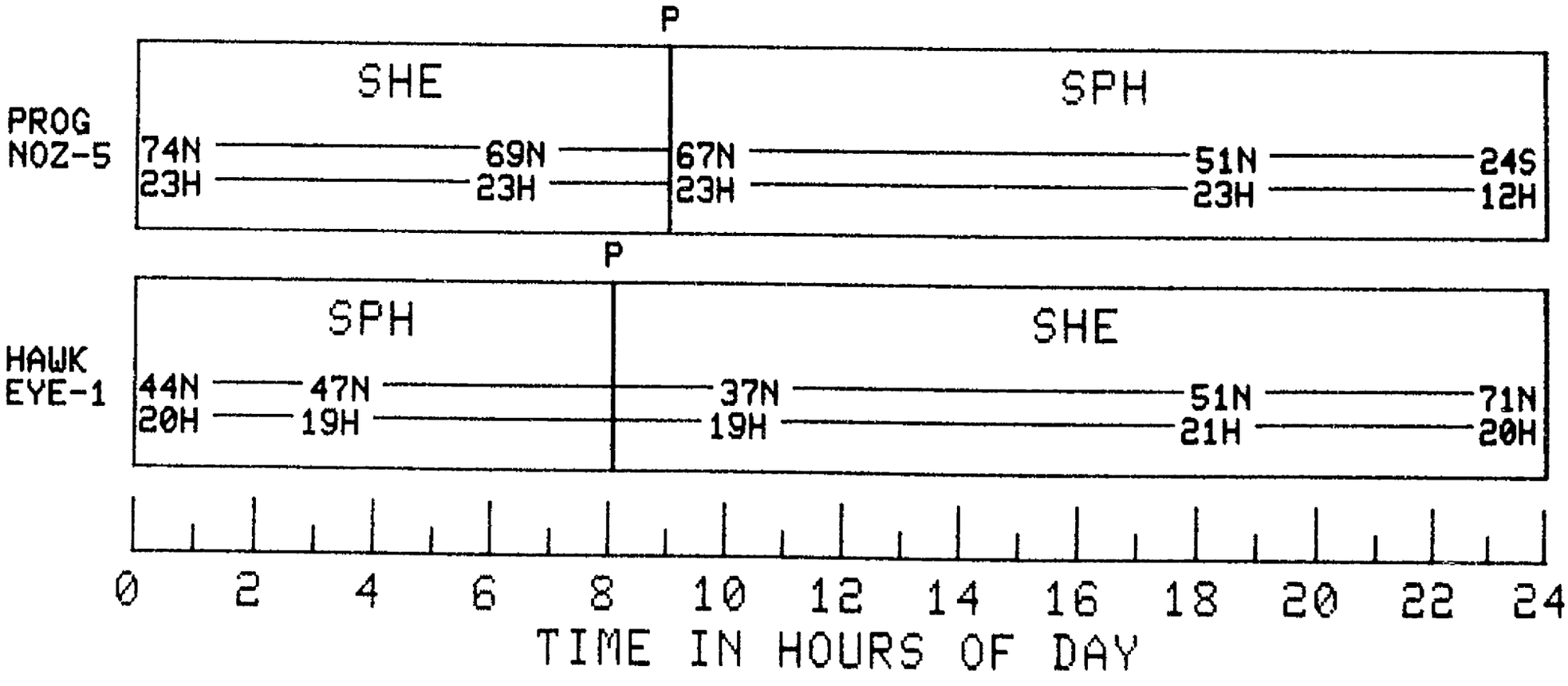
DAY 245 1977


IMP-J
INP
23r 22r 21r 20r 19r
35N 36N 37N 38N 38N
14H 14H 15H 15H 15H
IMP-H
INP
7r 10r 12r 14r 15r
3S 1S 2N 5N 7N
5H 6H 6H 6H 7H
P
S
SOL RAD -11B
SHE
INP
7r
1S 0N 0r 0r 1r 4r
4H 5H 3N 5N
7H 9H
P
SOL RAD -11A
SHE
SPH
TAL
0N 2S 3S 11r 5r
17H 18H 19H 4S 5S
20H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

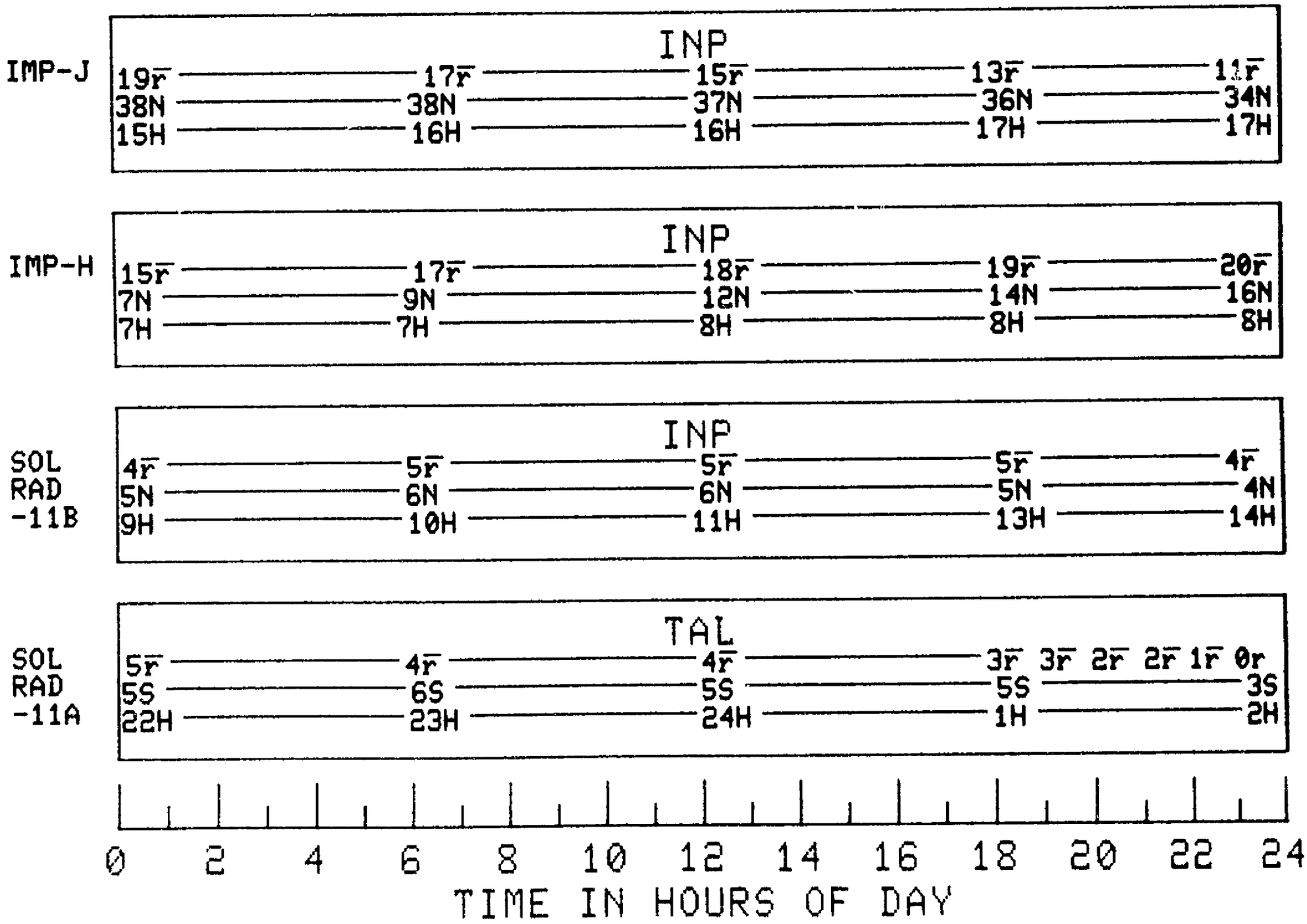
DAY 245 1977


VELA -5B
INP
2r̄ 3r̄ 3r̄ 3r̄ 2r̄
18S 3S 13N 28N 41N
8H 9H 10H 11H 12H
P
VELA -6A
TAL
SPH
SHE
13r̄ 11r̄
45S 50S 53S 52S 32S
1H 2H 3H 4H 7H
P
VELA -5B
TAL
SPH
SHE
11r̄ 11r̄ 13r̄ 52S 53S 49S
30S 42S 2H 4H 5H
23H 24H
S
P
VELA -5A
SHE
SPH
0r
50N 53N 46N 32N 20N
13H 16H 18H 19H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

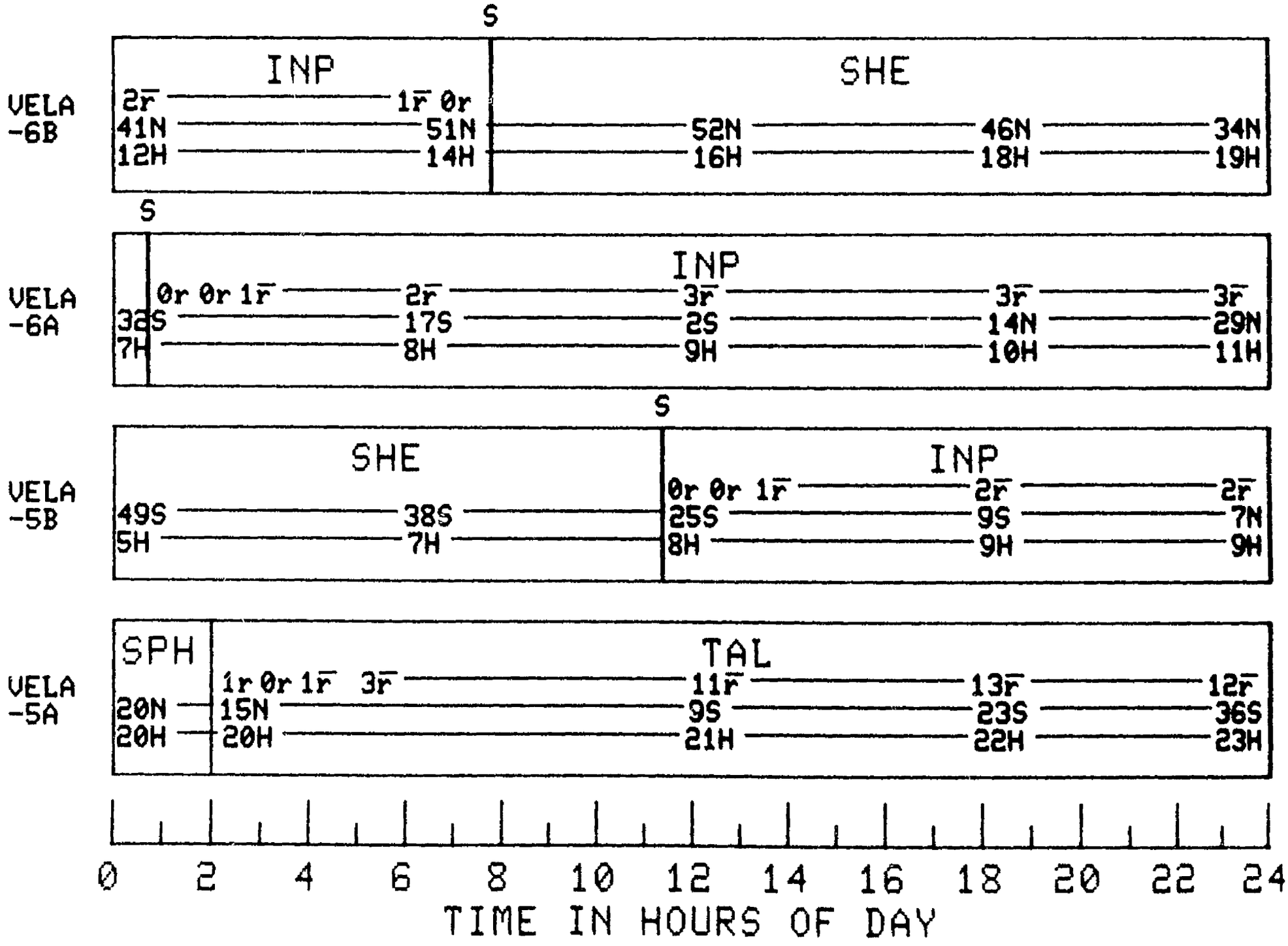
DAY 245 1977


P
SHE
SPH
PROG
NOZ-5
74N
23H
69N
23H
67N
23H
51N
23H
24S
12H
P
SPH
SHE
HAWK
EYE-1
44N
20H
47N
19H
37N
19H
51N
21H
71N
20H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

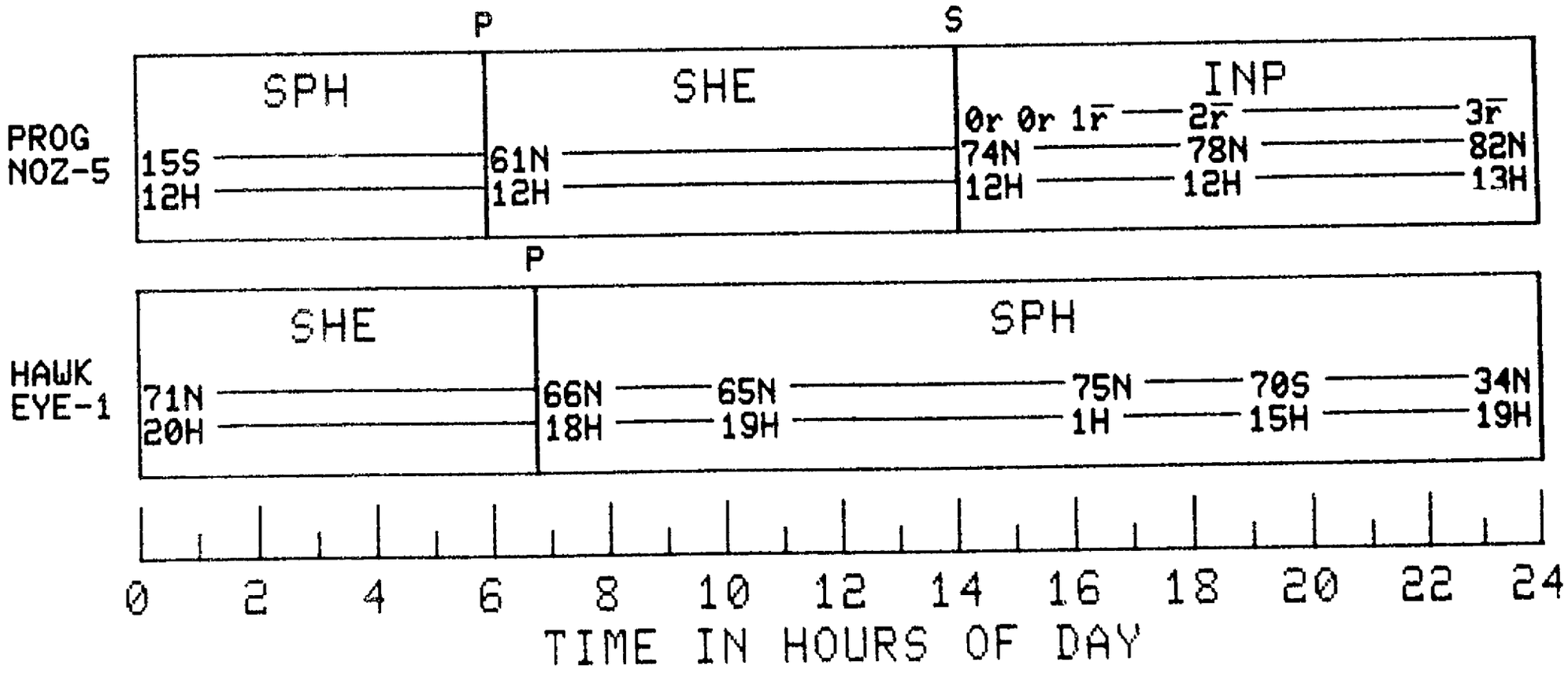
DAY 246 1977


IMP-J
INP
19r 17r 15r 13r 11r
38N 38N 37N 36N 34N
15H 16H 16H 17H 17H
IMP-H
INP
15r 17r 18r 19r 20r
7N 9N 12N 14N 16N
7H 7H 8H 8H 8H
SOL RAD -11B
INP
4r 5r 5r 5r 4r
5N 6N 6N 5N 4N
9H 10H 11H 13H 14H
SOL RAD -11A
TAL
5r 4r 4r 3r 3r 2r 2r 1r 0r
5S 6S 5S 5S 3S
22H 23H 24H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

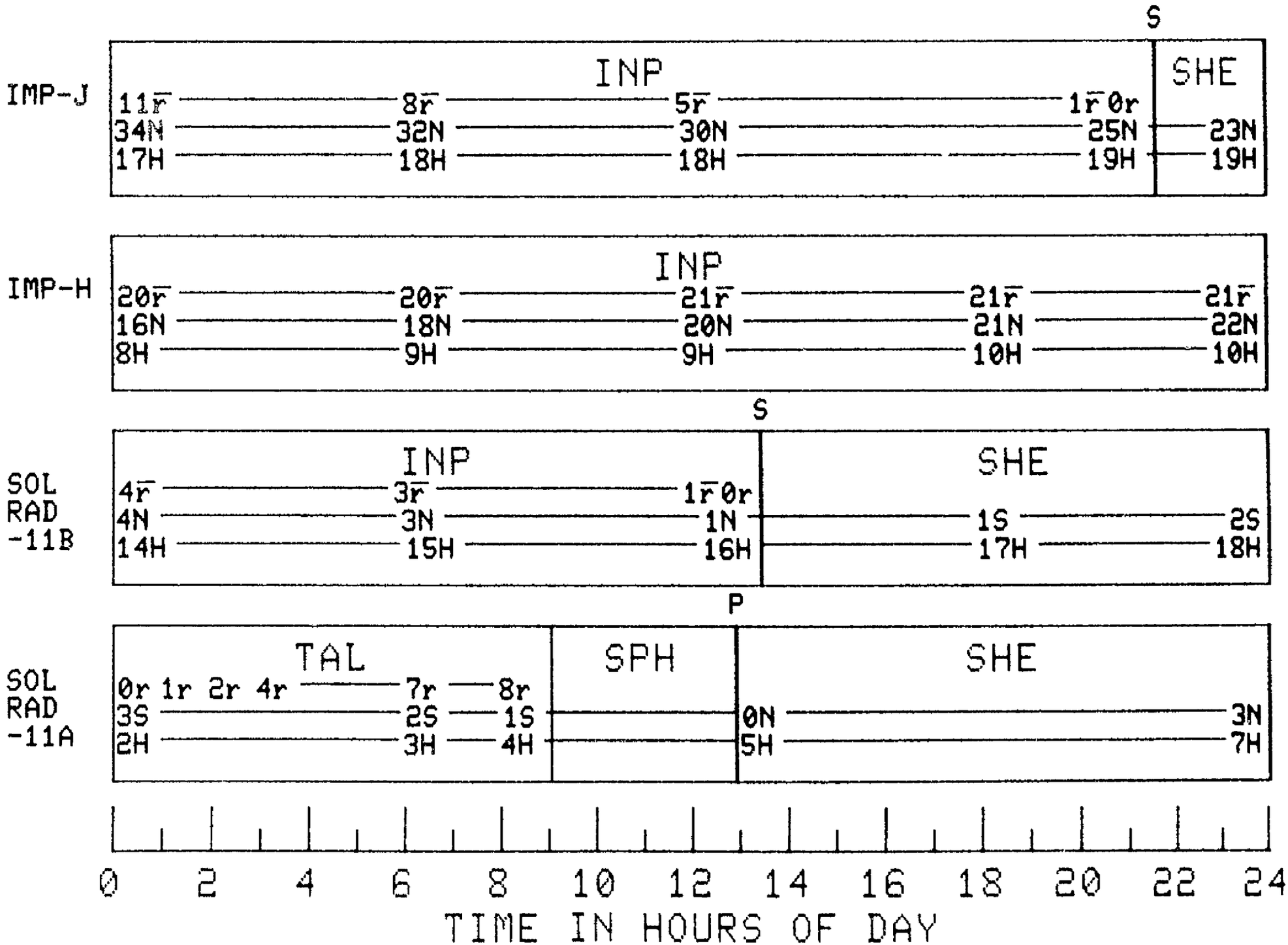
DAY 246 1977


S
INP
SHE
VELA -6B
2r̄ 1r̄ 0r
41N 51N 52N 46N 34N
12H 14H 16H 18H 19H
S
INP
VELA -6A
0r 0r 1r̄ 2r̄ 3r̄ 3r̄ 3r̄
3S 17S 2S 14N 29N
7H 8H 9H 10H 11H
S
SHE
INP
VELA -5B
0r 0r 1r̄ 2r̄ 2r̄
49S 38S 25S 9S 7N
5H 7H 8H 9H 9H
SPH
TAL
VELA -5A
1r 0r 1r̄ 3r̄ 11r̄ 13r̄ 12r̄
20N 15N 9S 23S 36S
20H 20H 21H 22H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

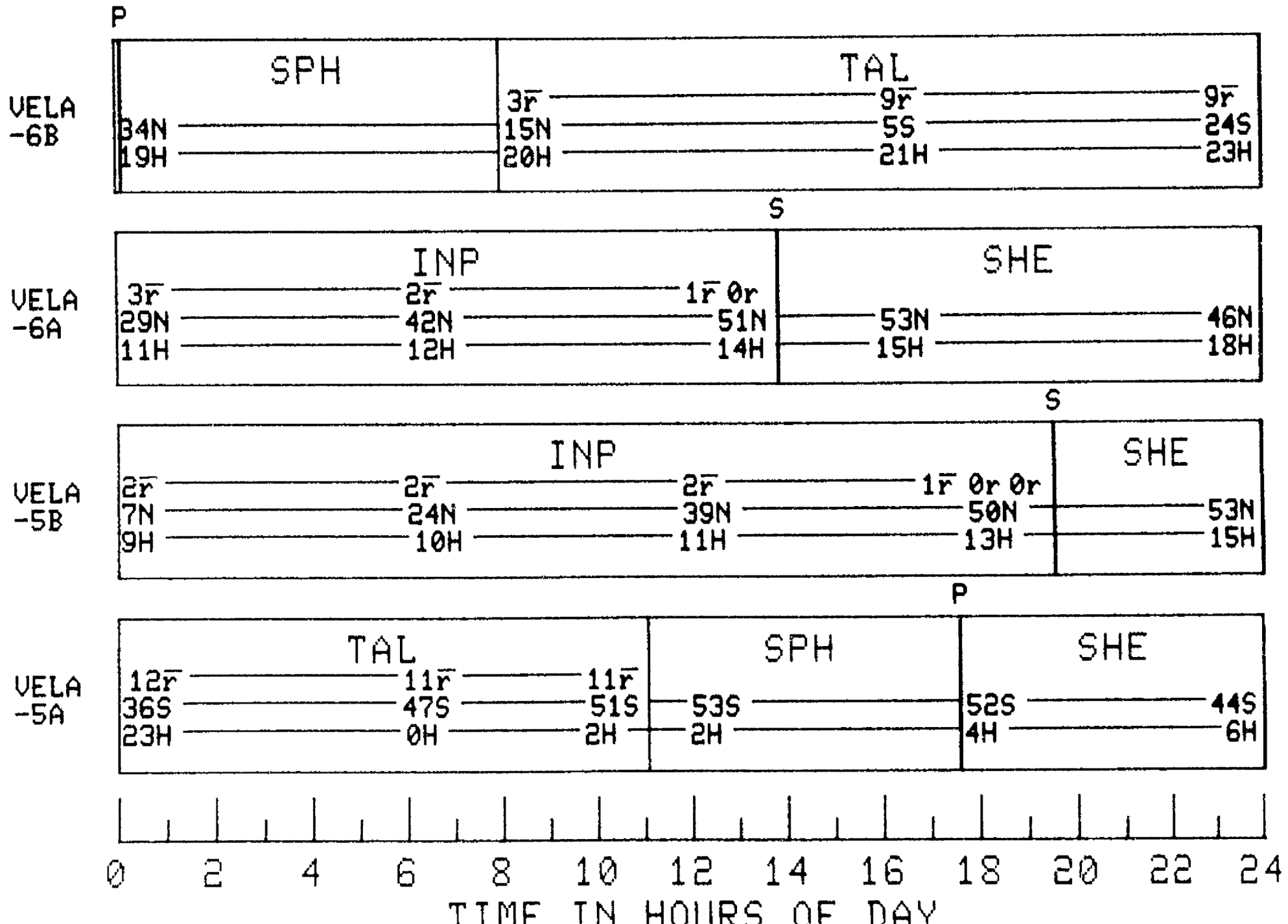
DAY 246 1977


P
S
SPH
SHE
INP
PROG
NOZ-5
15S
12H
61N
12H
0r 0r 1r
74N
12H
2r
78N
12H
3r
82N
13H
P
SHE
SPH
HAWK
EYE-1
71N
20H
66N
18H
65N
19H
75N
1H
70S
15H
34N
19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

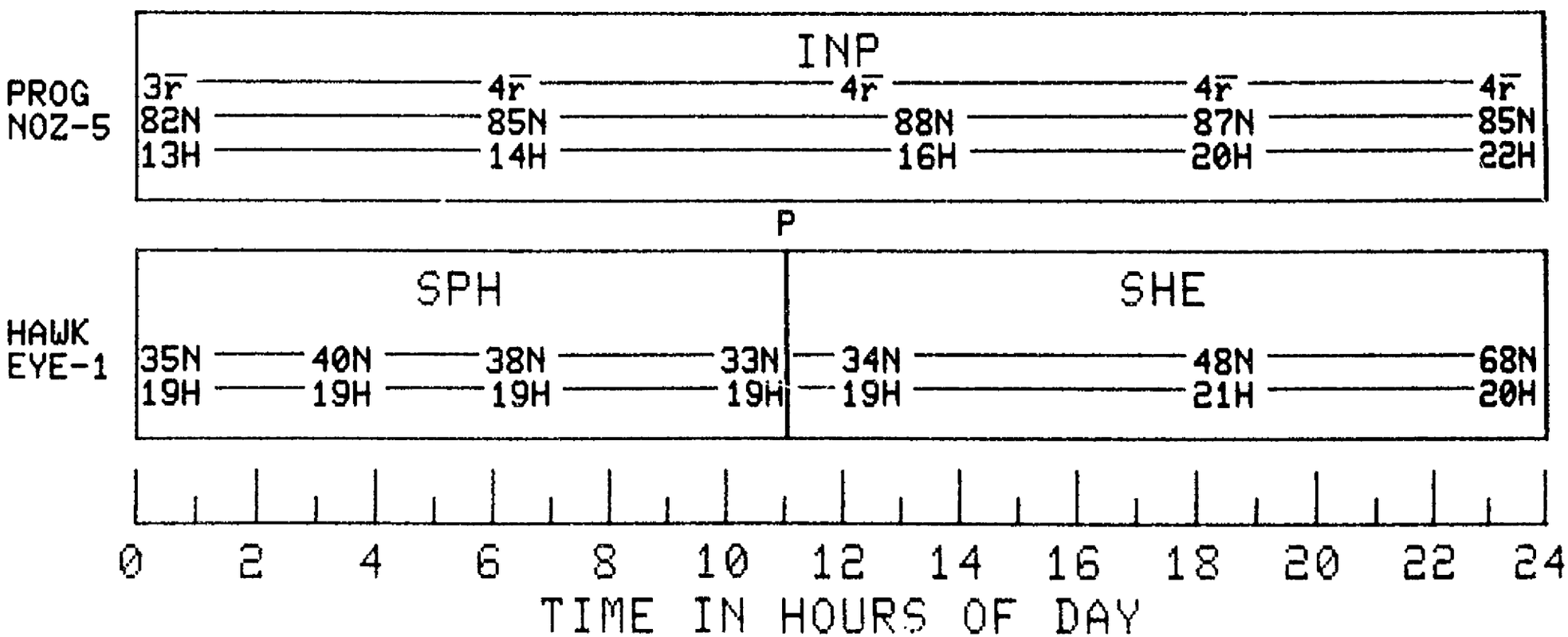
DAY 247 1977


IMP-J
INP
SHE
S
11r 8r 5r 1r 0r
34N 32N 30N 25N 23N
17H 18H 18H 19H 19H
IMP-H
INP
20r 20r 21r 21r 21r
16N 18N 20N 21N 22N
8H 9H 9H 10H 10H
SOL RAD -11B
INP
SHE
S
4r 3r 1r 0r
4N 3N 1N 1S 2S
14H 15H 16H 17H 18H
SOL RAD -11A
TAL
SPH
SHE
P
0r 1r 2r 4r 7r 8r
3S 2S 1S 0N 3N
2H 3H 4H 5H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

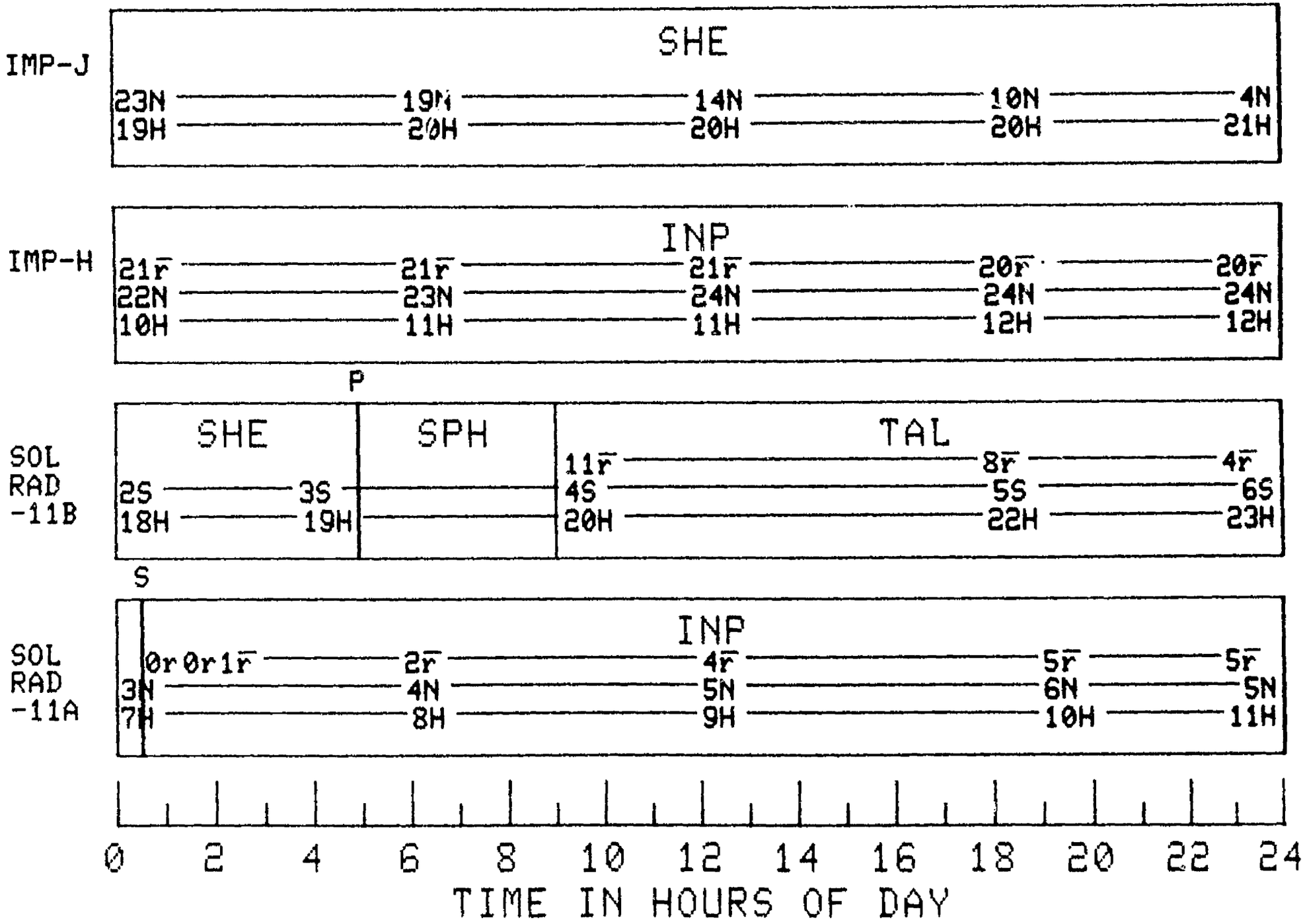
DAY 247 1977

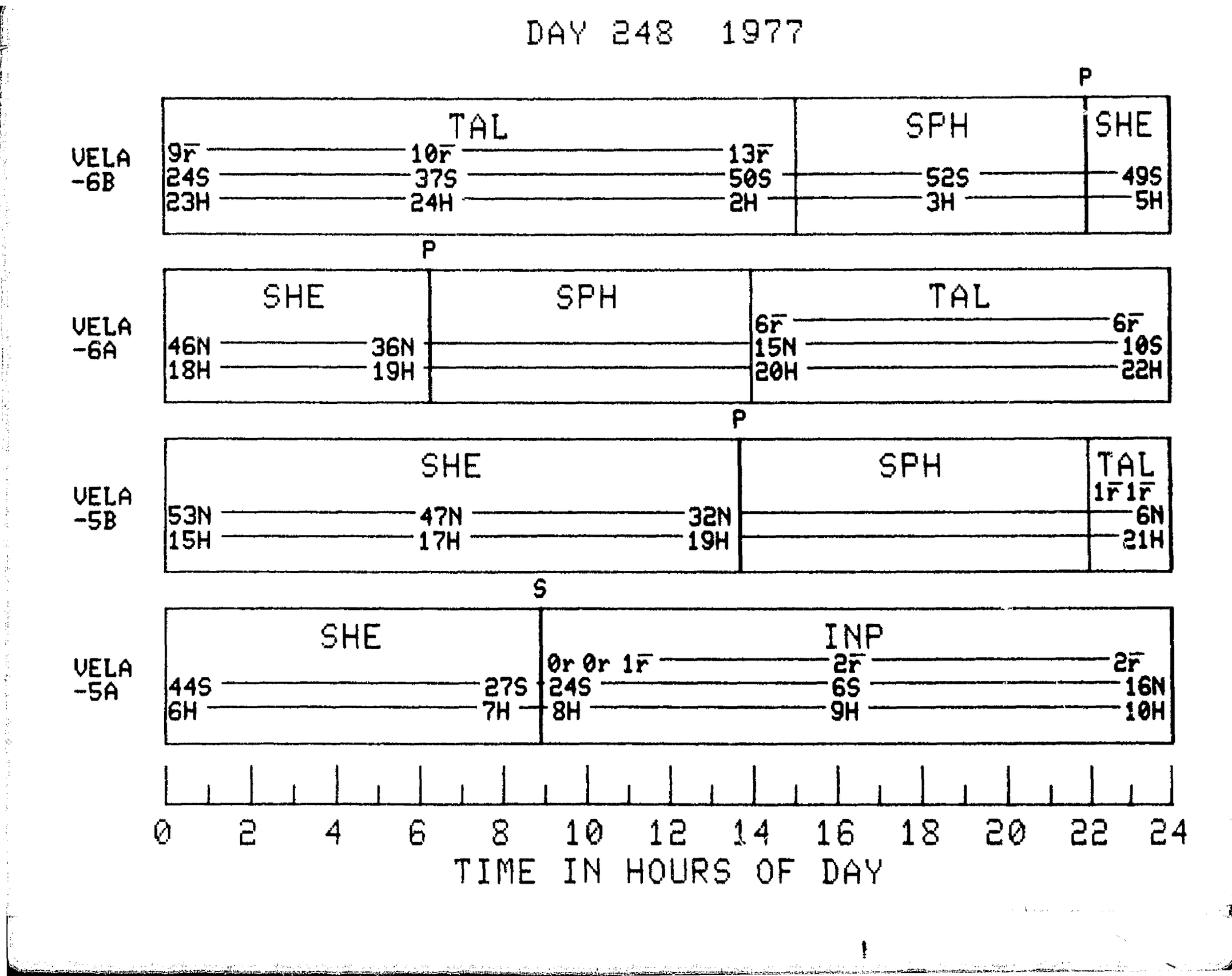

P
SPH
TAL
VELA -6B
3r̄
9r̄
9r̄
34N
15N
5S
24S
19H
20H
21H
23H
S
INP
SHE
VELA -6A
3r̄
2r̄
1r̄ 0r
29N
42N
51N
53N
46N
11H
12H
14H
15H
18H
S
INP
SHE
VELA -5B
2r̄
2r̄
2r̄
1r̄ 0r 0r
7N
24N
39N
50N
53N
9H
10H
11H
13H
15H
P
TAL
SPH
SHE
VELA -5A
12r̄
11r̄
11r̄
36S
47S
51S
53S
52S
44S
23H
0H
2H
2H
4H
6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 247 1977

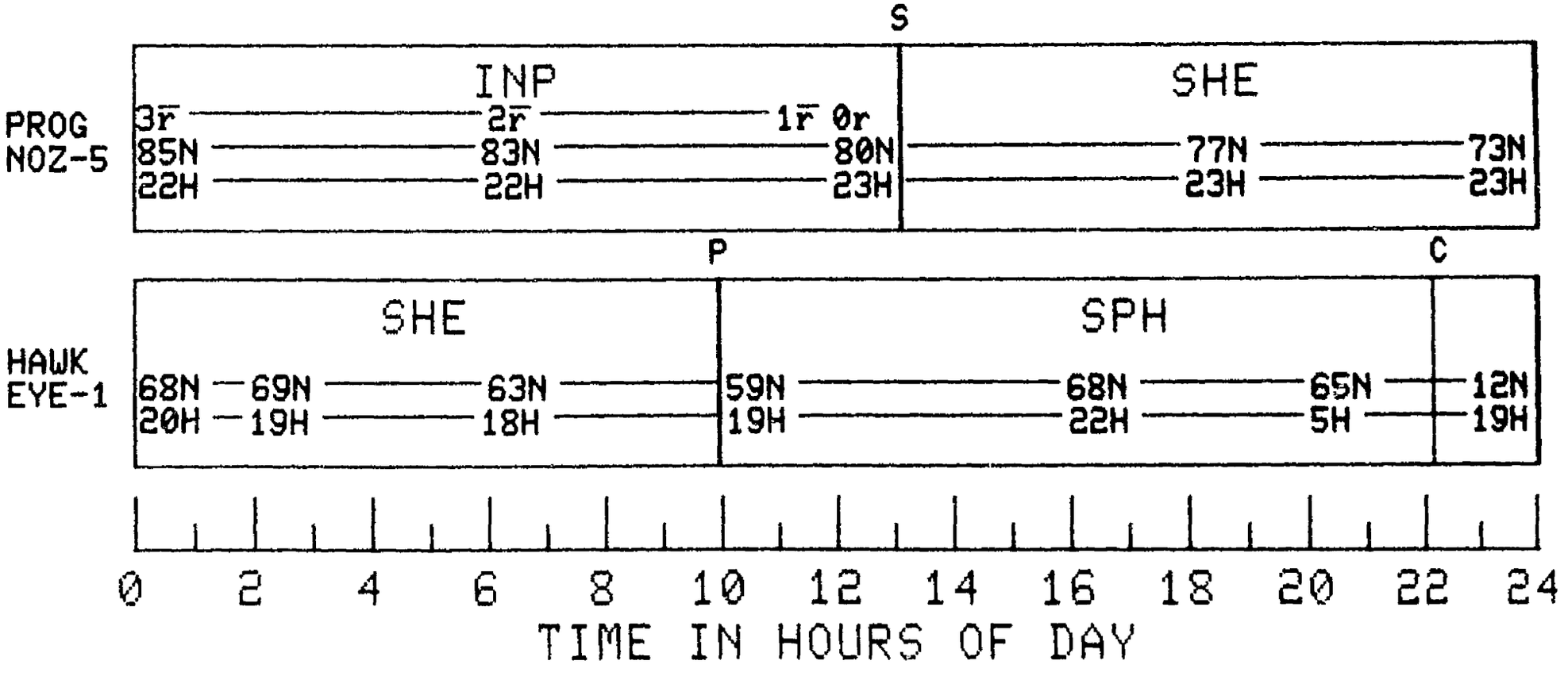

INP
PROG
NOZ-5
3r 4r 4r 4r 4r
82N 85N 88N 87N 85N
13H 14H 16H 20H 22H
P
SPH
SHE
HAWK
EYE-1
35N 40N 38N 33N 34N 48N 68N
19H 19H 19H 19H 19H 21H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 248 1977

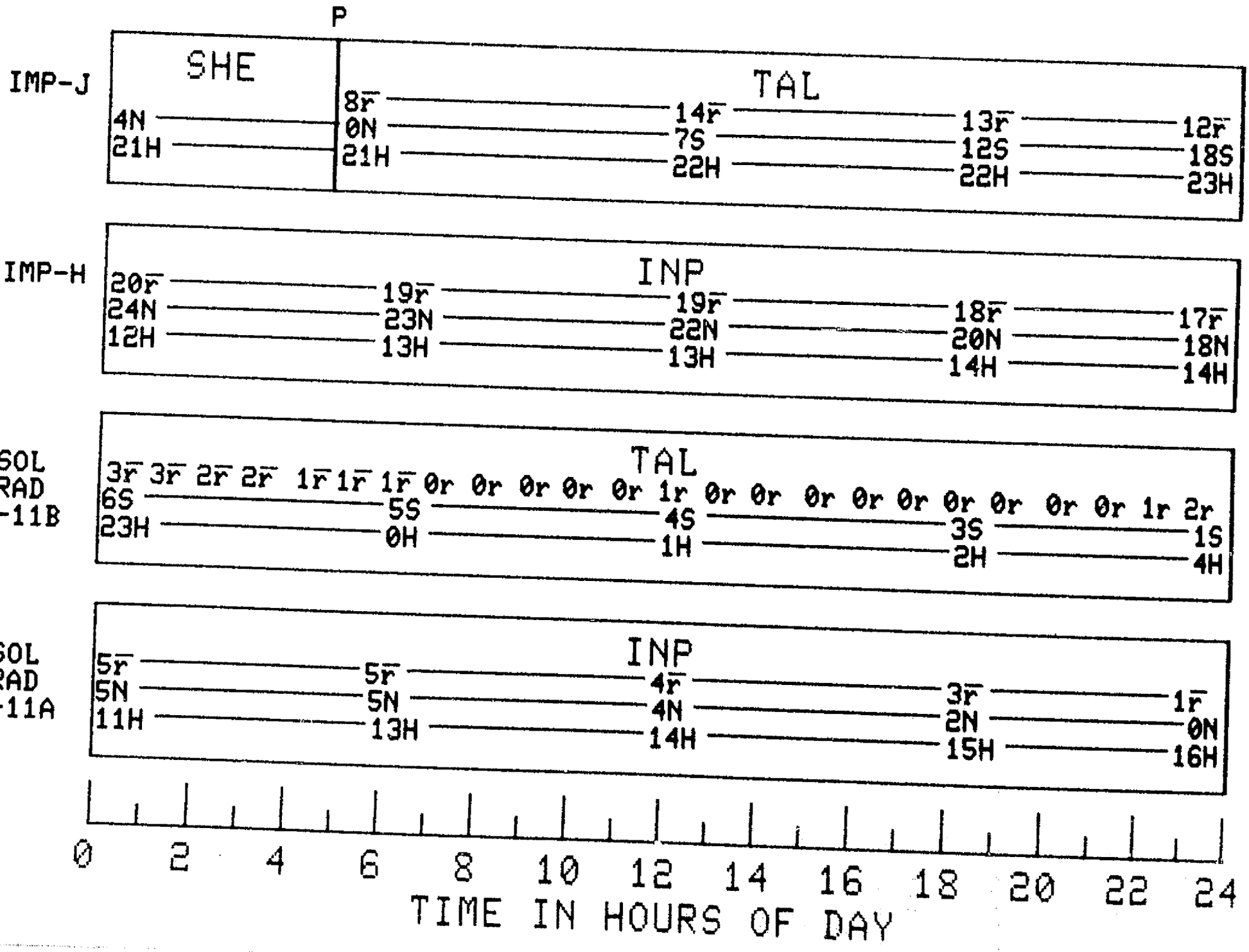

IMP-J
SHE
23N 19N 14N 10N 4N
19H 20H 20H 20H 21H
IMP-H
INP
21r 21r 21r 20r 20r
22N 23N 24N 24N 24N
10H 11H 11H 12H 12H
P
SOL RAD -11B
SHE
SPH
TAL
2S 3S
18H 19H
11r 8r 4r
4S 5S 6S
20H 22H 23H
S
SOL RAD -11A
INP
0r 0r 1r 2r 4r 5r 5r
3N 4N 5N 6N 5N
7H 8H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

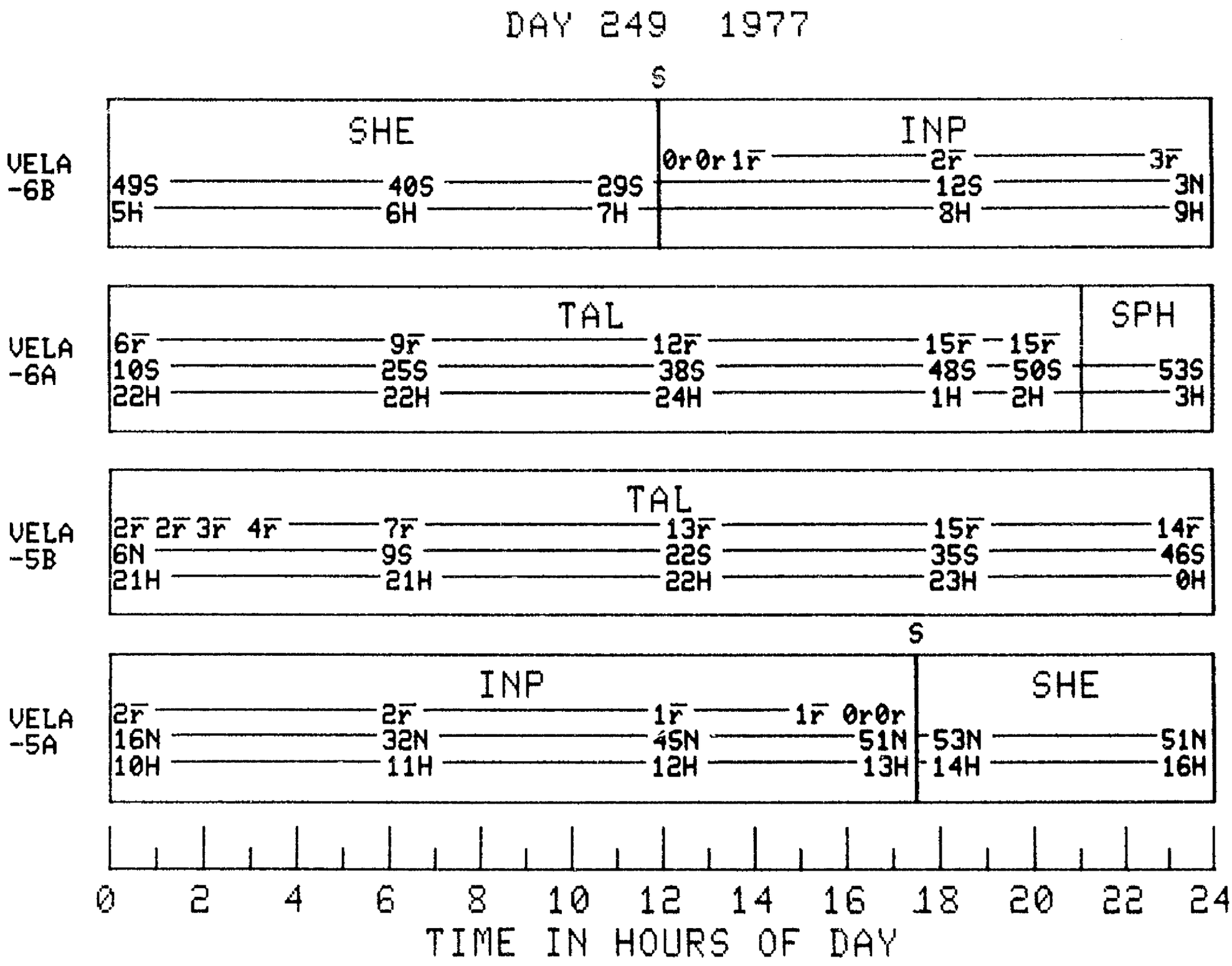

DAY 248 1977
VELA -6B
TAL
SPH
SHE
P
9r̄ 10r̄ 13r̄
24S 37S 50S 52S 49S
23H 24H 2H 3H 5H
VELA -6A
SHE
SPH
TAL
P
46N 36N
18H 19H
6r̄ 6r̄
15N 10S
20H 22H
VELA -5B
SHE
SPH
TAL
P
53N 47N 32N
15H 17H 19H
1r̄ 1r̄
6N
21H
VELA -5A
SHE
INP
S
44S 27S
6H 7H
0r 0r 1r̄ 2r̄ 2r̄
24S 6S 16N
8H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 248 1977

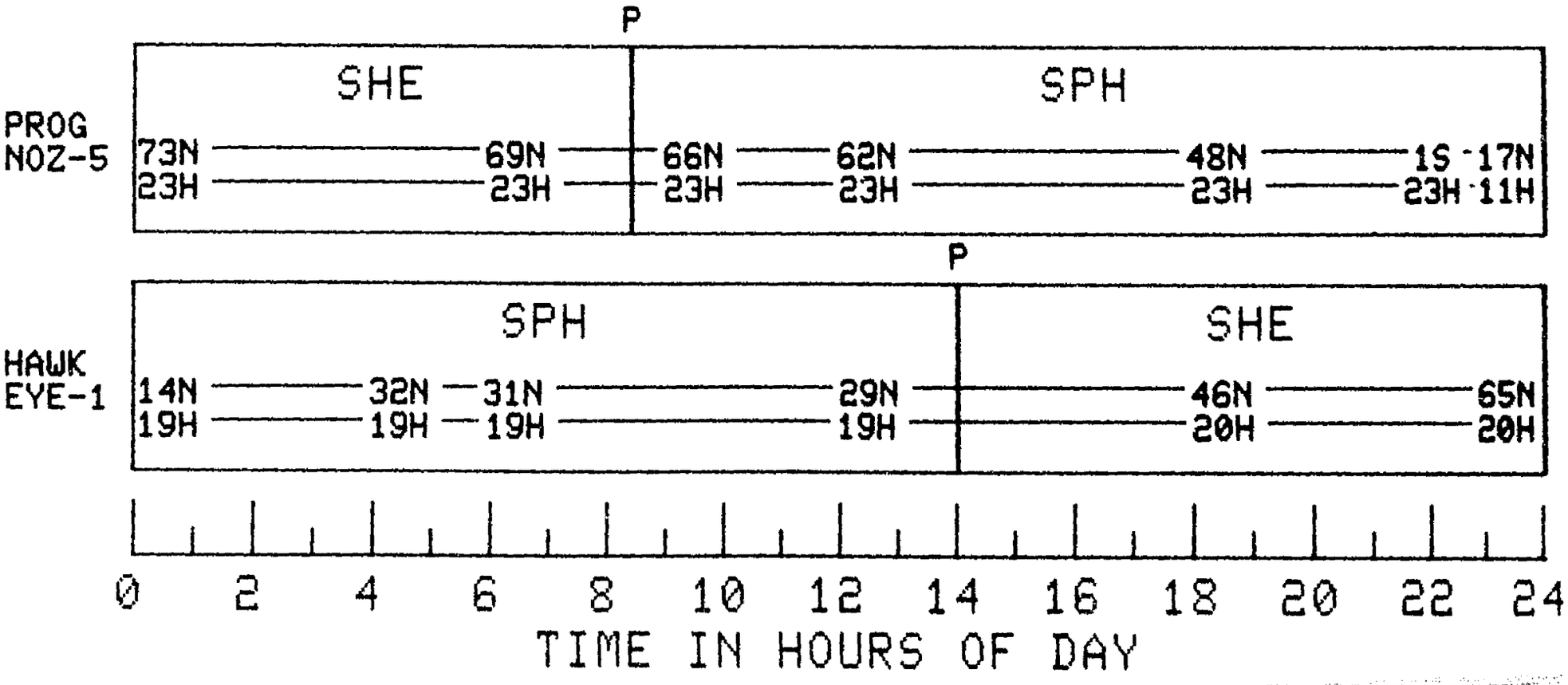

S
INP
SHE
PROG
NOZ-5
3r 2r 1r 0r
85N 83N 80N 77N 73N
22H 22H 23H 23H 23H
P
C
SHE
SPH
HAWK
EYE-1
68N 69N 63N 59N 68N 65N 12N
20H 19H 18H 19H 22H 5H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 249 1977

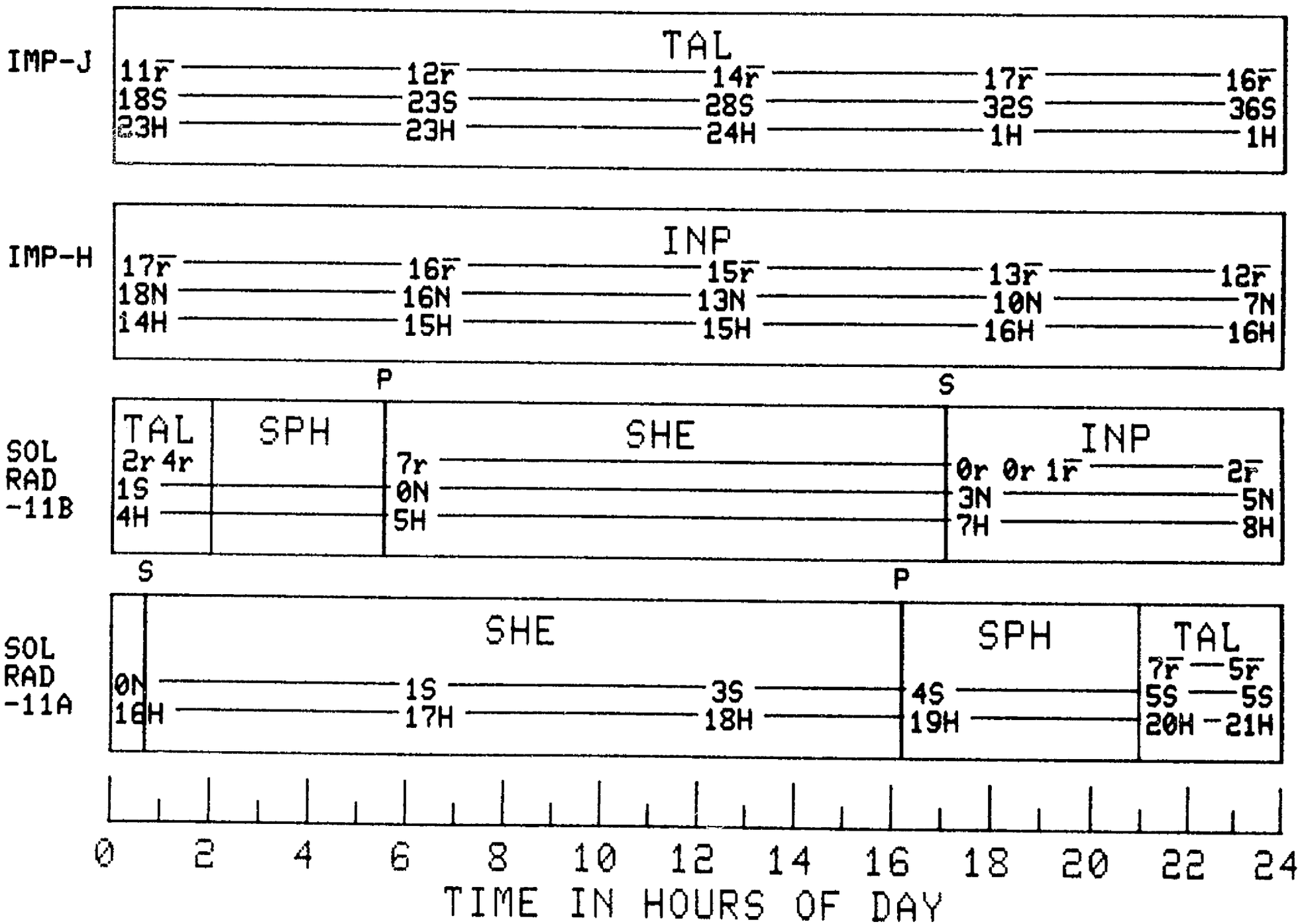

P
IMP-J
SHE
4N
21H
TAL
8r̄ 14r̄ 13r̄ 12r̄
0N 7S 12S 18S
21H 22H 22H 23H
IMP-H
INP
20r̄ 19r̄ 19r̄ 18r̄ 17r̄
24N 23N 22N 20N 18N
12H 13H 13H 14H 14H
SOL RAD -11B
TAL
3r̄ 3r̄ 2r̄ 2r̄ 1r̄ 1r̄ 1r̄ 0r 0r 0r 0r 0r 1r 0r 0r 0r 0r 0r 0r 0r 0r 0r 1r 2r
6S 5S 4S 3S 1S
23H 0H 1H 2H 4H
SOL RAD -11A
INP
5r̄ 5r̄ 4r̄ 3r̄ 1r̄
5N 5N 4N 2N 0N
11H 13H 14H 15H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 249 1977
S
SHE
INP
VELA -6B
49S 40S 29S
5H 6H 7H
0r 0r 1r 2r 3r
12S 3N
8H 9H
TAL
SPH
VELA -6A
6r 9r 12r 15r 15r
10S 25S 38S 48S 50S 53S
22H 22H 24H 1H 2H 3H
TAL
VELA -5B
2r 2r 3r 4r 7r 13r 15r 14r
6N 9S 22S 35S 46S
21H 21H 22H 23H 0H
S
INP
SHE
VELA -5A
2r 2r 1r 1r 0r 0r
16N 32N 45N 51N 53N 51N
10H 11H 12H 13H 14H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

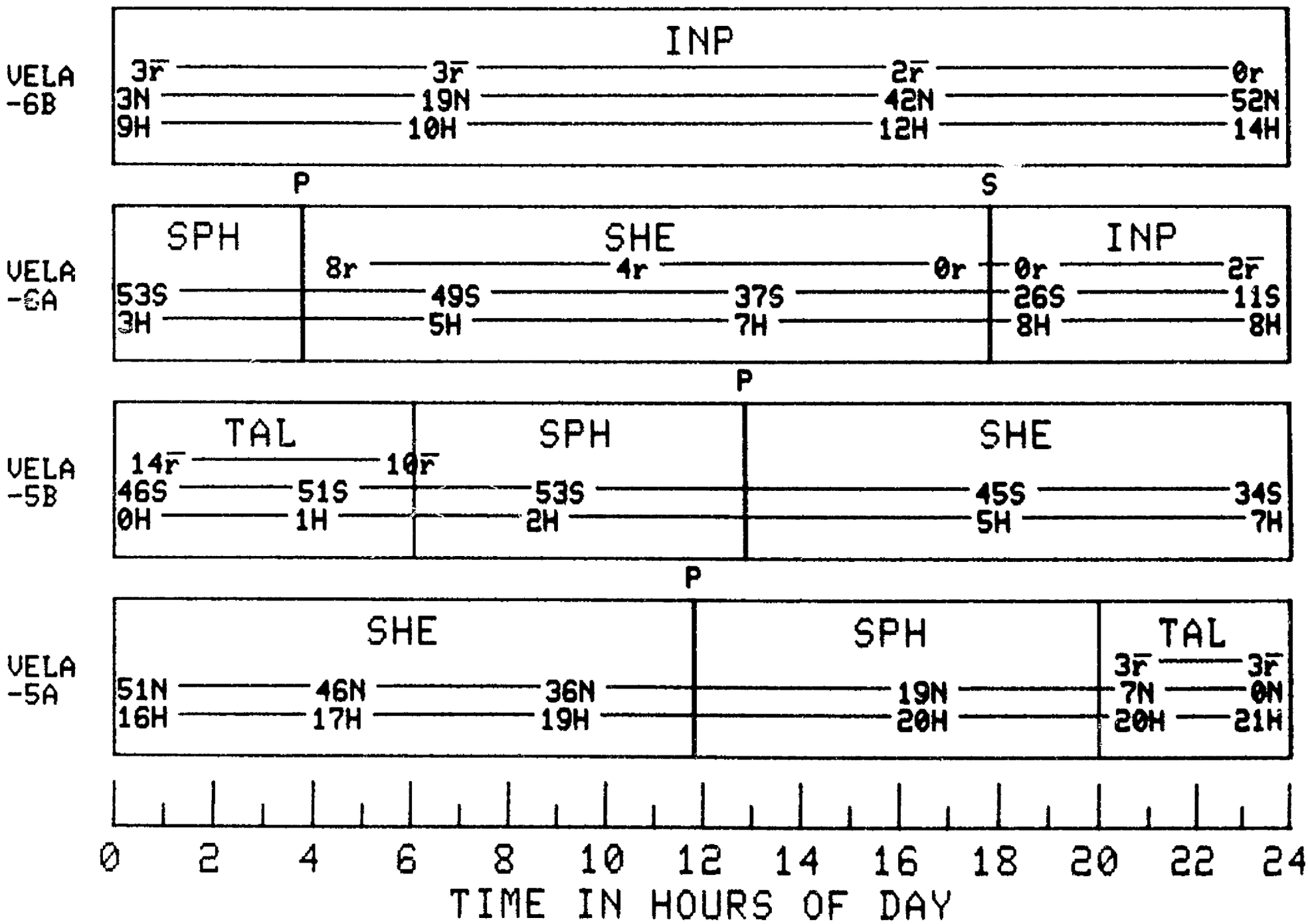
DAY 249 1977


P
SHE
SPH
PROG
NOZ-5
73N
23H
69N
23H
66N
23H
62N
23H
48N
23H
1S 17N
23H 11H
P
SPH
SHE
HAWK
EYE-1
14N
19H
32N
19H
31N
19H
29N
19H
46N
20H
65N
20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

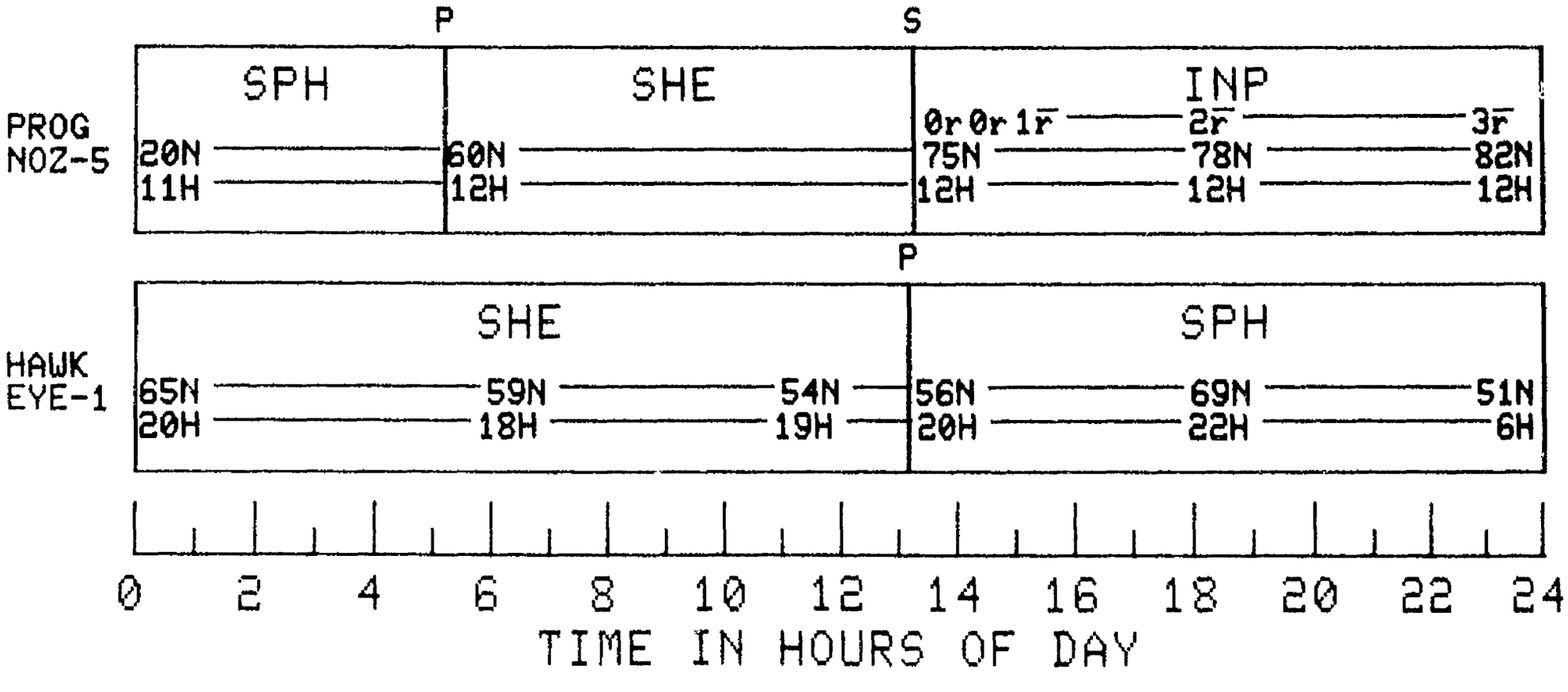
DAY 250 1977

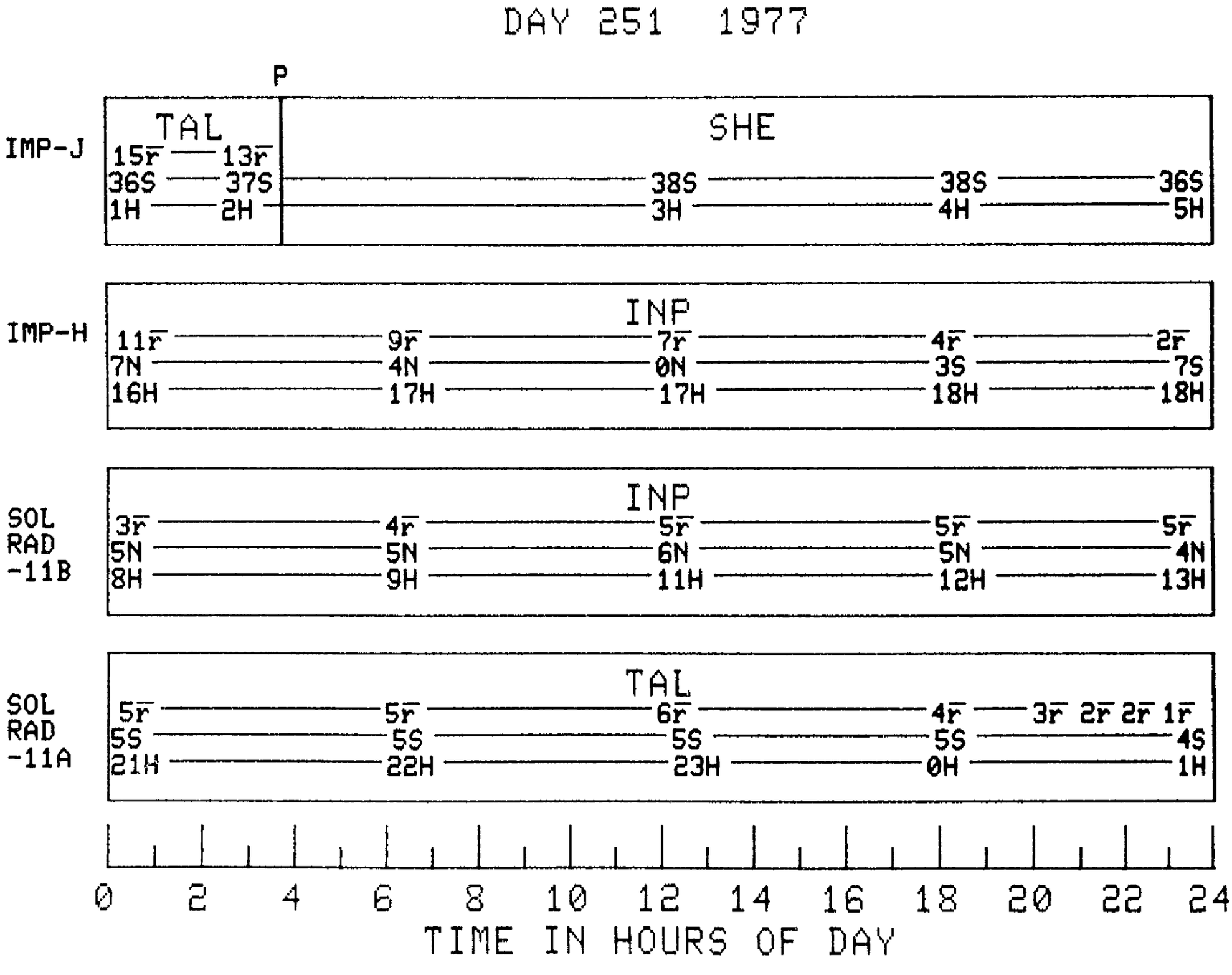

IMP-J
TAL
11r 12r 14r 17r 16r
18S 23S 28S 32S 36S
23H 23H 24H 1H 1H
IMP-H
INP
17r 16r 15r 13r 12r
18N 16N 13N 10N 7N
14H 15H 15H 16H 16H
P
S
SOL RAD -11B
TAL
2r 4r
1S
4H
SPH
SHE
7r
0N
5H
INP
0r 0r 1r 2r
3N 5N
7H 8H
S
P
SOL RAD -11A
0N
16H
SHE
1S 3S
17H 18H
SPH
4S
19H
TAL
7r 5r
5S 5S
20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

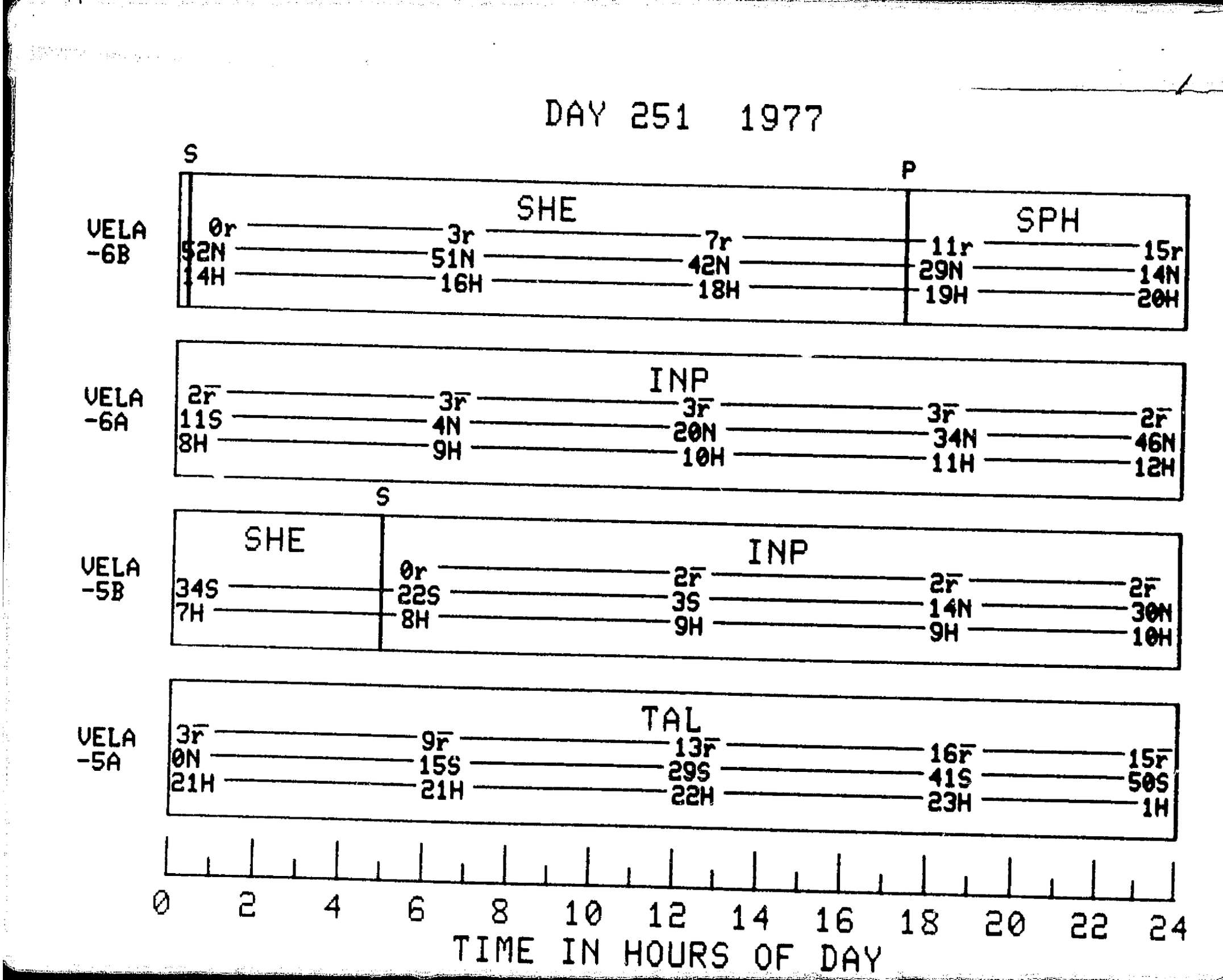
DAY 250 1977


VELA -6B
INP
3r̄ 3r̄ 2r̄ 0r
3N 19N 42N 52N
9H 10H 12H 14H
P
S
VELA -6A
SPH
SHE
INP
8r 4r 0r 0r 2r̄
53S 49S 37S 26S 11S
3H 5H 7H 8H 8H
P
VELA -5B
TAL
SPH
SHE
14r̄ 10r̄
46S 51S 53S 45S 34S
0H 1H 2H 5H 7H
P
VELA -5A
SHE
SPH
TAL
3r̄ 3r̄
51N 46N 36N 19N 7N 0N
16H 17H 19H 20H 20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

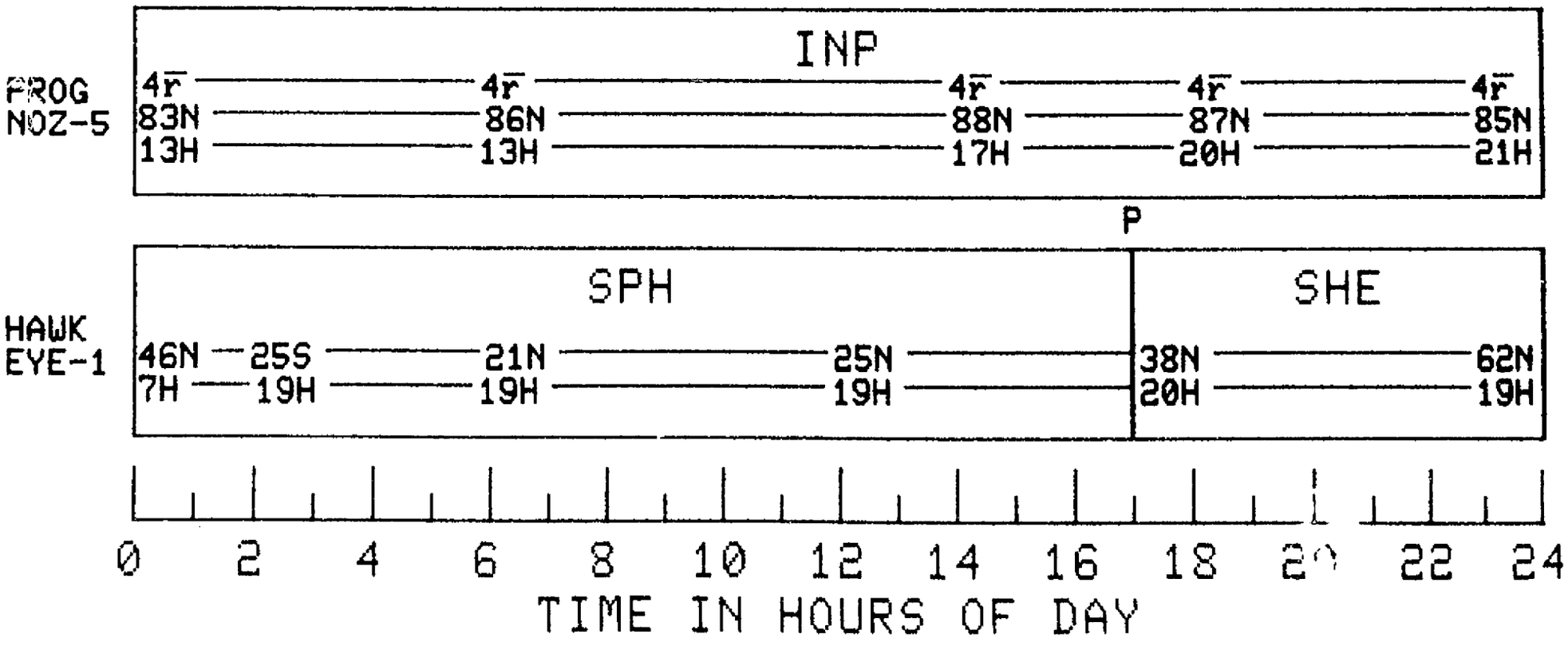
DAY 250 1977


P
S
SPH
SHE
INP
PROG
NOZ-5
20N
11H
60N
12H
0r 0r 1r
75N
12H
2r
78N
12H
3r
82N
12H
P
SHE
SPH
HAWK
EYE-1
65N
20H
59N
18H
54N
19H
56N
20H
69N
22H
51N
6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

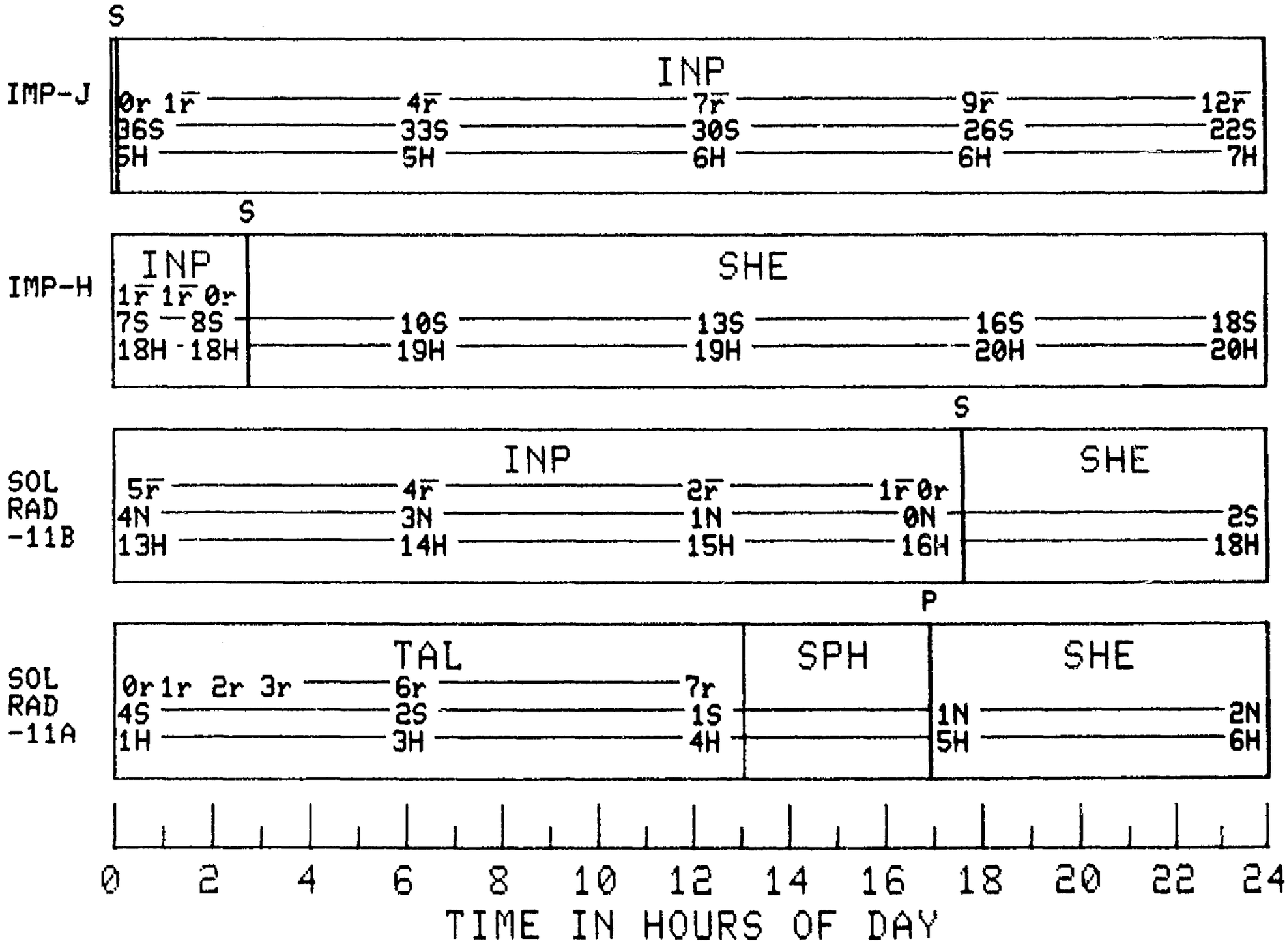

DAY 251 1977
P
IMP-J
TAL
15r 13r
36S 37S
1H 2H
SHE
38S 38S 36S
3H 4H 5H
IMP-H
INP
11r 9r 7r 4r 2r
7N 4N 0N 3S 7S
16H 17H 17H 18H 18H
SOL RAD -11B
INP
3r 4r 5r 5r 5r
5N 5N 6N 5N 4N
8H 9H 11H 12H 13H
SOL RAD -11A
TAL
5r 5r 6r 4r 3r 2r 2r 1r
5S 5S 5S 5S 4S
21H 22H 23H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 251 1977
S
P
VELA -6B
SHE
0r
3r
7r
52N
51N
42N
14H
16H
18H
SPH
11r
15r
29N
14N
19H
20H
VELA -6A
INP
2r̄
3r̄
3r̄
3r̄
2r̄
11S
4N
20N
34N
46N
8H
9H
10H
11H
12H
S
VELA -5B
SHE
34S
7H
INP
0r
2r̄
2r̄
2r̄
22S
3S
14N
30N
8H
9H
9H
10H
VELA -5A
TAL
3r̄
9r̄
13r̄
16r̄
15r̄
0N
15S
29S
41S
50S
21H
21H
22H
23H
1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

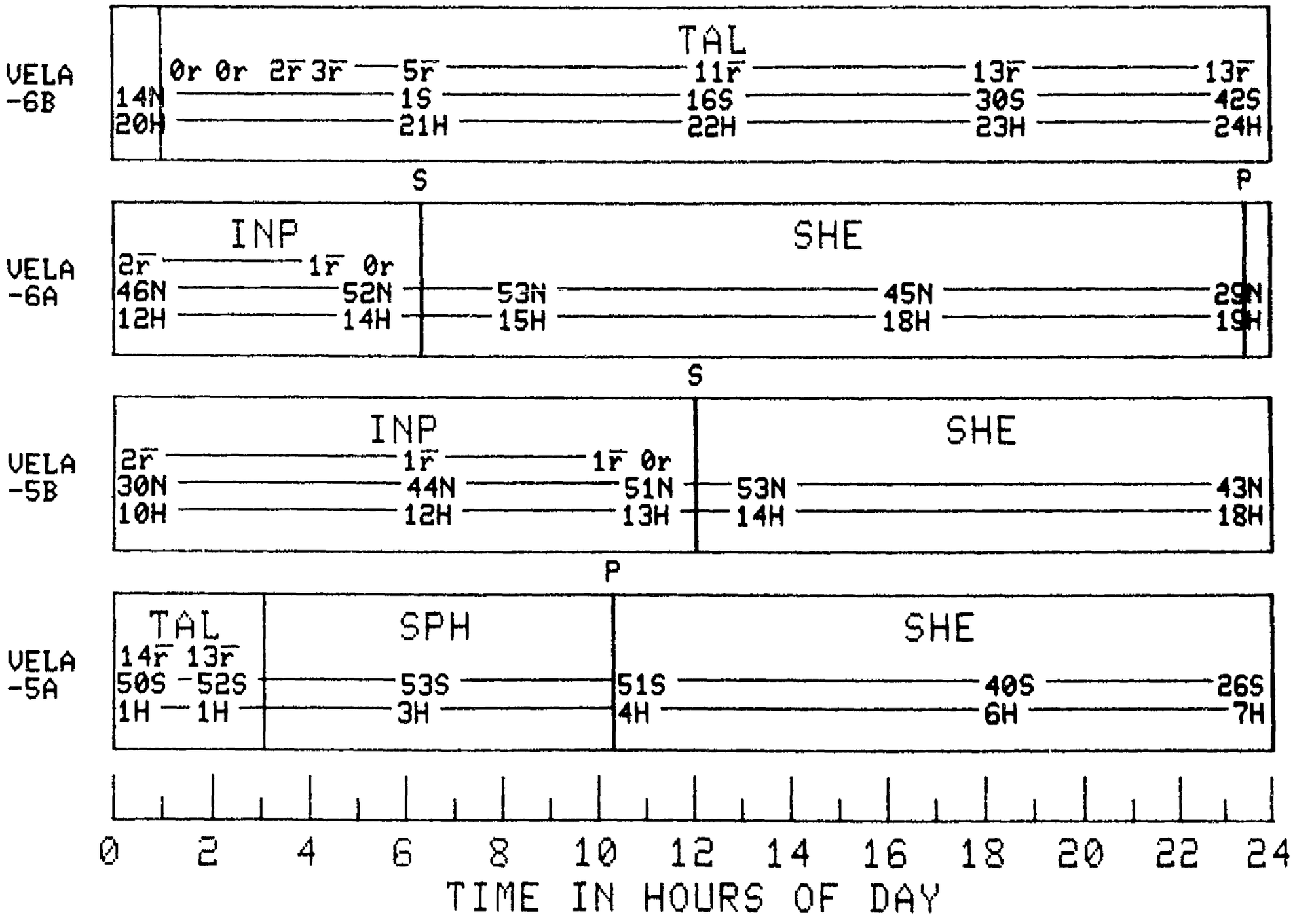
DAY 251 1977


INP
PROG
NOZ-5
4r 4r 4r 4r 4r
83N 86N 88N 87N 85N
13H 13H 17H 20H 21H
P
SPH
SHE
HAWK
EYE-1
46N 25S 21N 25N 38N 62N
7H 19H 19H 19H 20H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

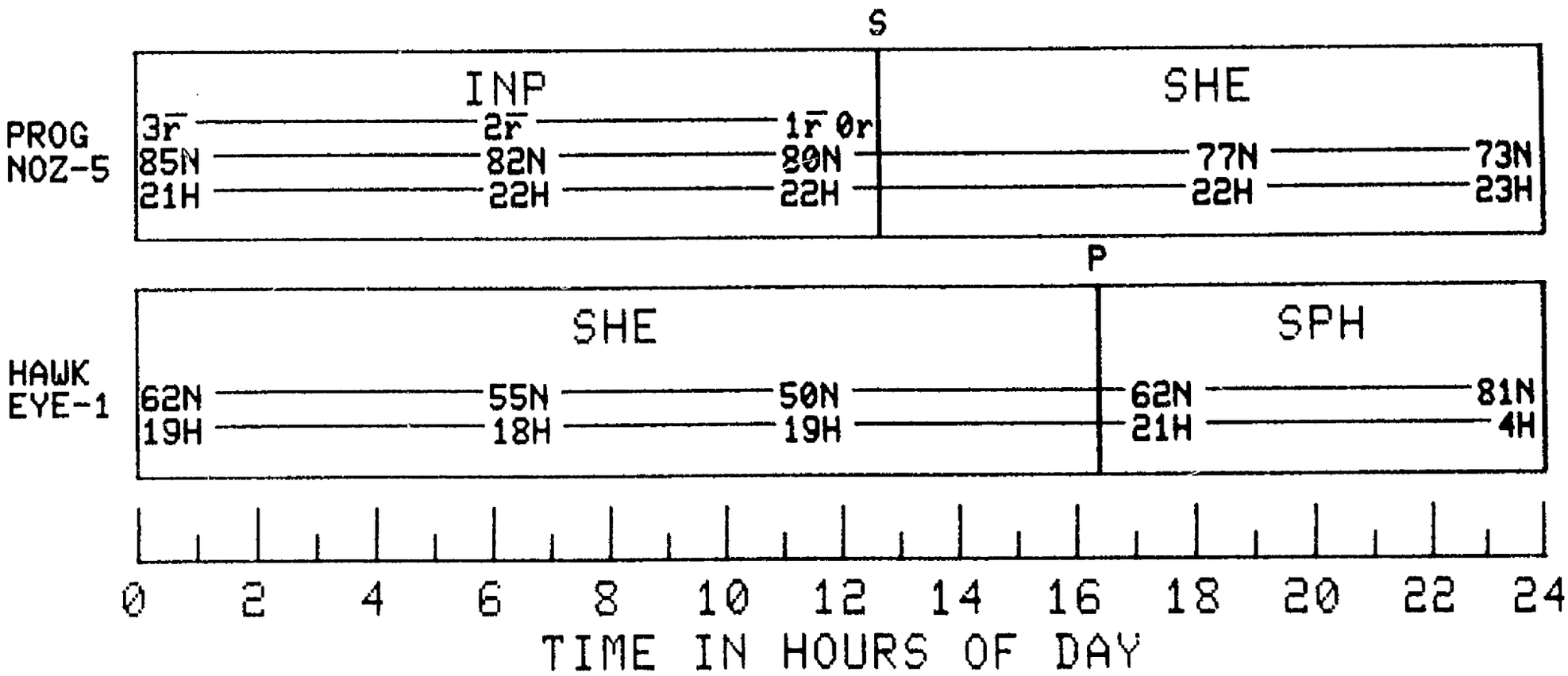
DAY 252 1977


IMP-J
S
INP
0r 1r 4r 7r 9r 12r
36S 33S 30S 26S 22S
5H 5H 6H 6H 7H
IMP-H
S
INP
SHE
1r 1r 0r
7S 8S 10S 13S 16S 18S
18H 18H 19H 19H 20H 20H
SOL RAD -11B
S
INP
SHE
5r 4r 2r 1r 0r
4N 3N 1N 0N 2S
13H 14H 15H 16H 18H
SOL RAD -11A
P
TAL
SPH
SHE
0r 1r 2r 3r 6r 7r
4S 2S 1S 1N 2N
1H 3H 4H 5H 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

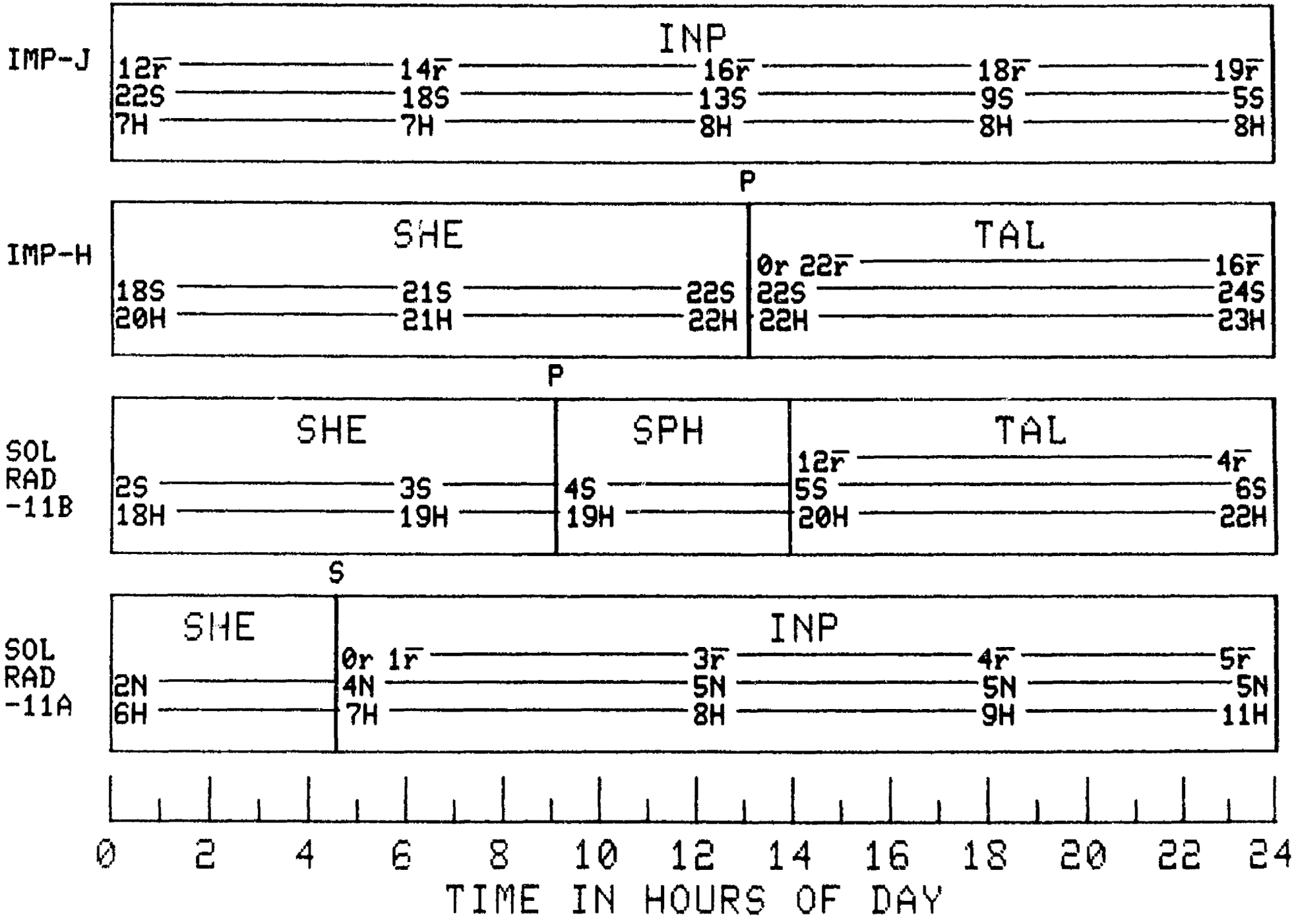
DAY 252 1977

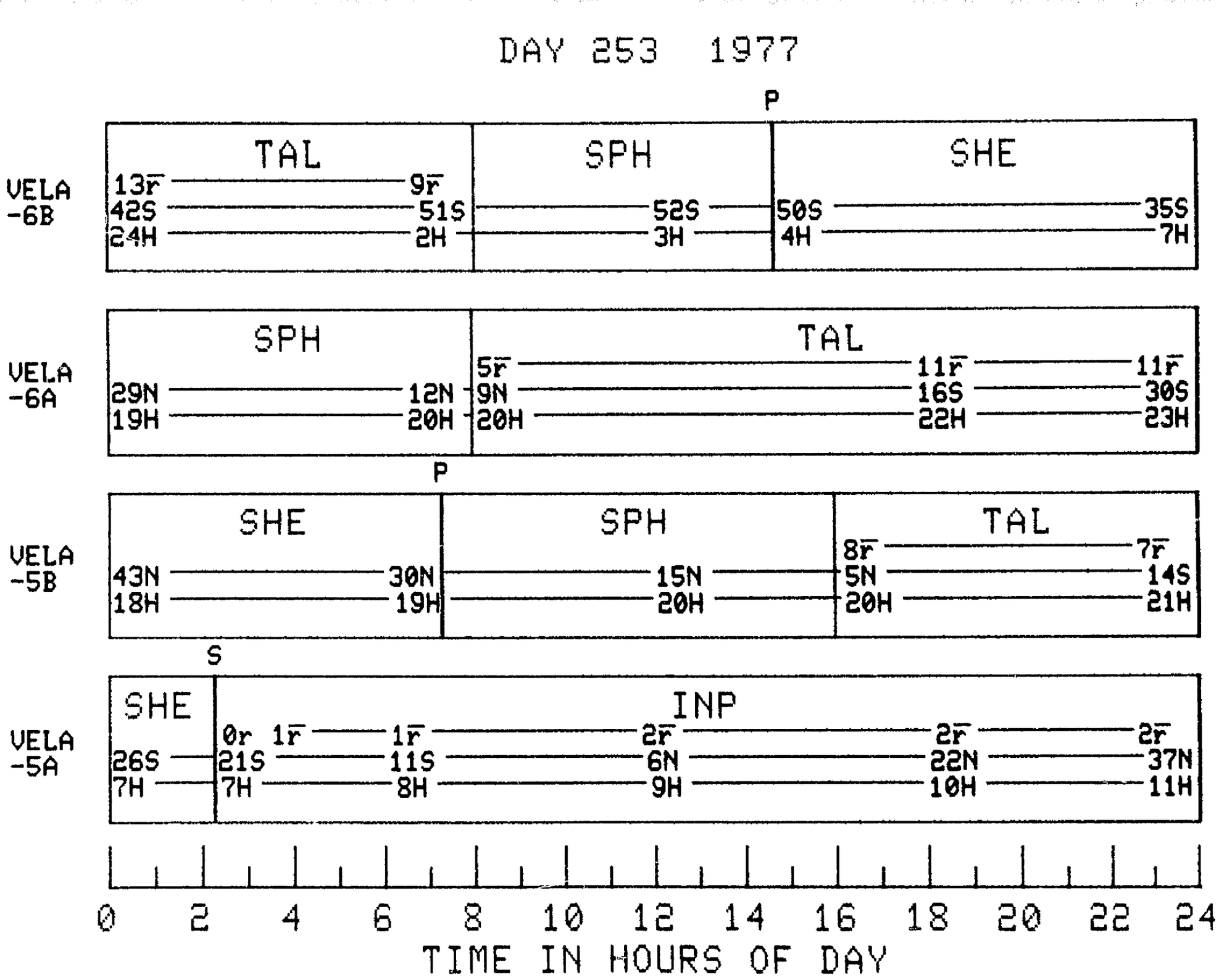

VELA -6B
TAL
0r 0r 2r 3r 5r 11r 13r 13r
14N 1S 16S 30S 42S
20H 21H 22H 23H 24H
S
P
VELA -6A
INP
SHE
2r 1r 0r
46N 52N 53N 45N 29N
12H 14H 15H 18H 19H
S
VELA -5B
INP
SHE
2r 1r 1r 0r
30N 44N 51N 53N 43N
10H 12H 13H 14H 18H
P
VELA -5A
TAL
SPH
SHE
14r 13r
50S 52S 53S 51S 40S 26S
1H 1H 3H 4H 6H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 252 1977

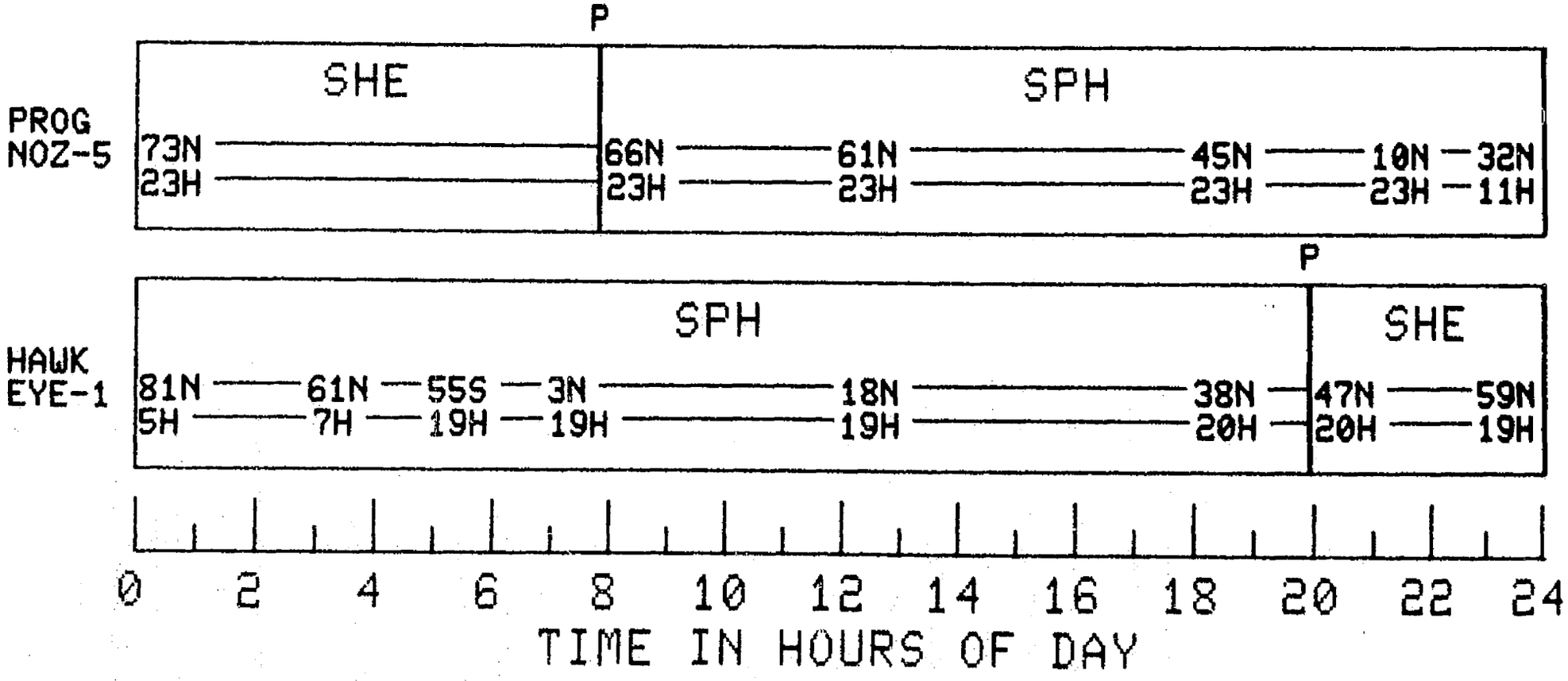

S
INP
SHE
PROG
NOZ-5
3r 2r 1r 0r
85N 82N 80N 77N 73N
21H 22H 22H 22H 23H
P
SHE
SPH
HAWK
EYE-1
62N 55N 50N 62N 81N
19H 18H 19H 21H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 253 1977

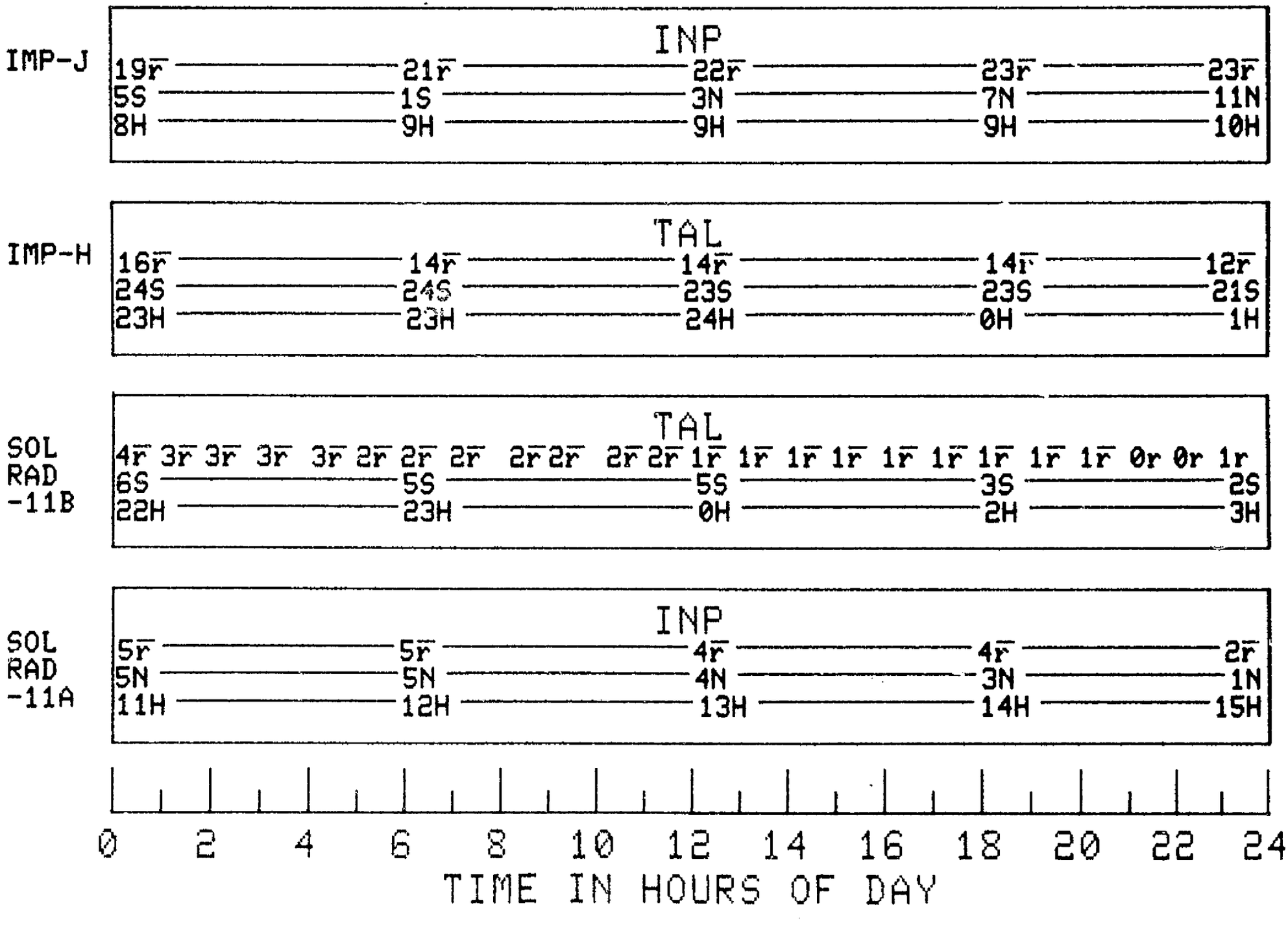

IMP-J
INP
12r̄ 14r̄ 16r̄ 18r̄ 19r̄
22S 18S 13S 9S 5S
7H 7H 8H 8H 8H
P
IMP-H
SHE
18S 21S 22S
20H 21H 22H
TAL
0r 22r̄ 16r̄
22S 24S
22H 23H
P
SOL RAD -11B
SHE
2S 3S
18H 19H
SPH
4S
19H
TAL
12r̄ 4r̄
5S 6S
20H 22H
S
SOL RAD -11A
SHE
2N
6H
INP
0r 1r̄ 3r̄ 4r̄ 5r̄
4N 5N 5N 5N
7H 8H 9H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 253 1977
P
TAL
SPH
SHE
VELA -6B
13r 9r
42S 51S 52S 50S 35S
24H 2H 3H 4H 7H
SPH
TAL
VELA -6A
29N 12N 5r 11r 11r
19H 20H 9N 16S 30S
20H 22H 23H
P
SHE
SPH
TAL
VELA -5B
43N 30N 15N 8r 7r
18H 19H 20H 5N 14S
20H 21H
S
SHE
INP
VELA -5A
0r 1r 1r 2r 2r 2r
26S 21S 11S 6N 22N 37N
7H 7H 8H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

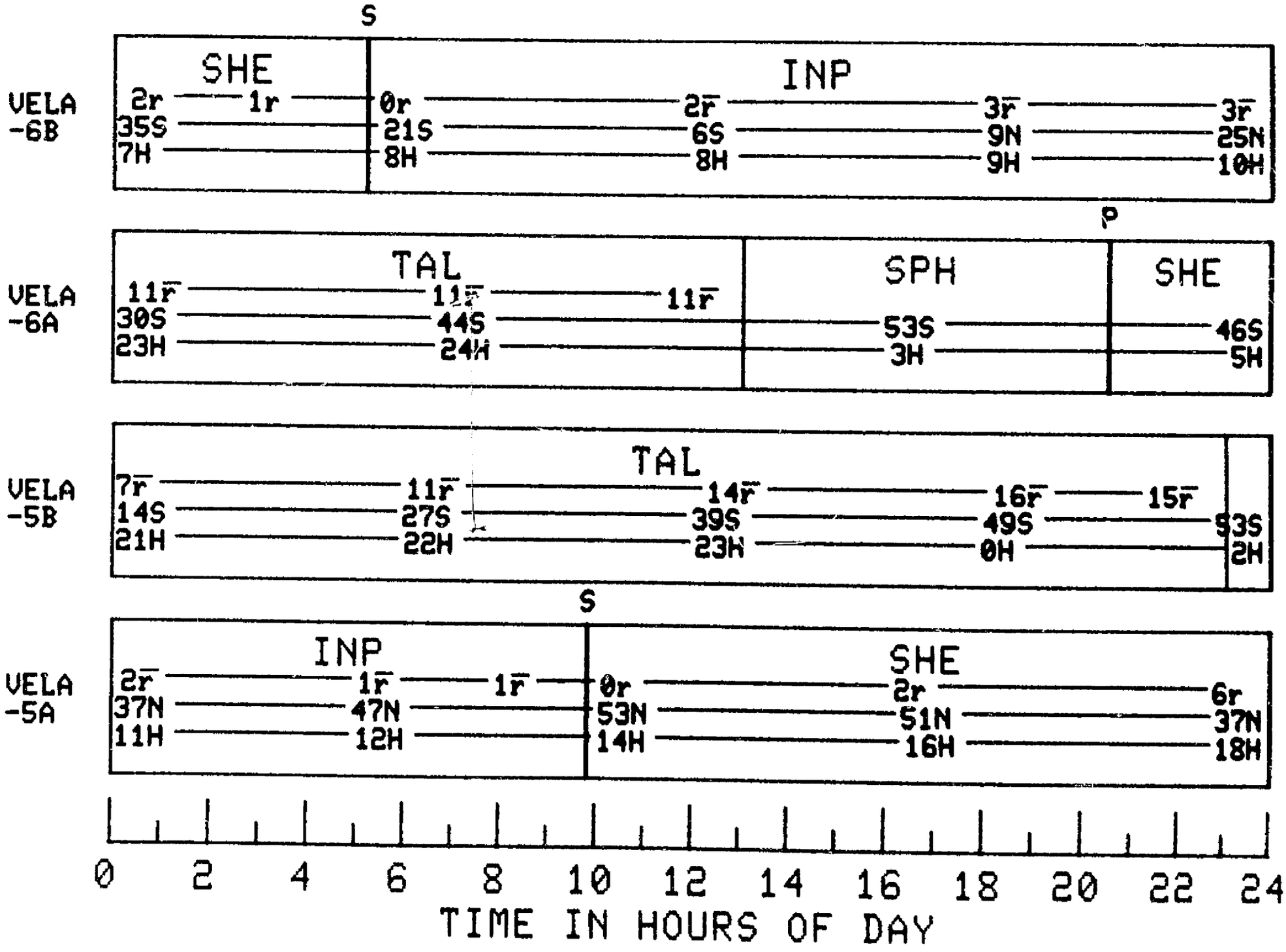
DAY 253 1977


P
SHE
SPH
PROG
NOZ-5
73N
23H
66N
23H
61N
23H
45N
23H
10N
23H
32N
11H
P
SPH
SHE
HAWK
EYE-1
81N
5H
61N
7H
55S
19H
3N
19H
18N
19H
38N
20H
47N
20H
59N
19H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

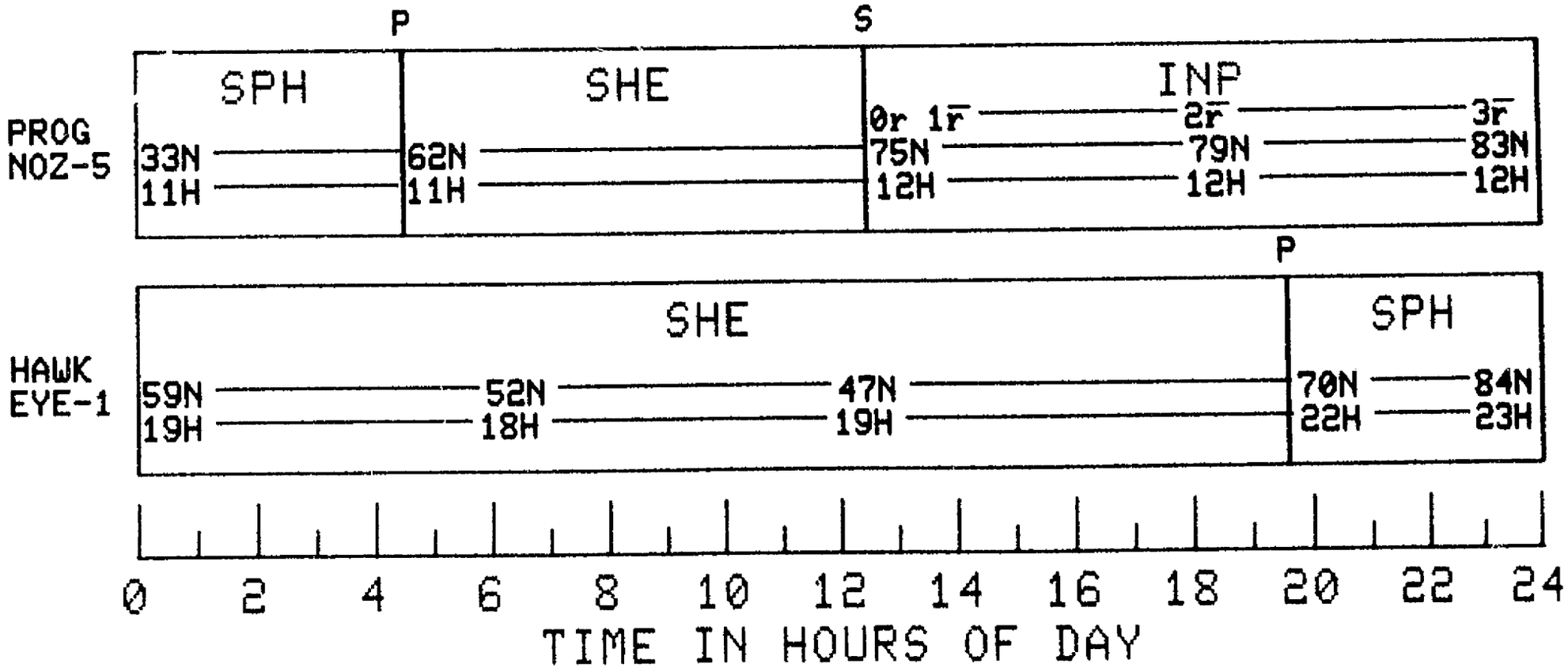
DAY 254 1977


IMP-J
INP
19r 21r 22r 23r 23r
5S 1S 3N 7N 11N
8H 9H 9H 9H 10H
IMP-H
TAL
16r 14r 14r 14r 12r
24S 24S 23S 23S 21S
23H 23H 24H 0H 1H
SOL RAD -11B
TAL
4r 3r 3r 3r 3r 2r 2r 2r 2r 2r 2r 2r 1r 1r 1r 1r 1r 1r 1r 1r 0r 0r 1r
6S 5S 5S 3S 2S
22H 23H 0H 2H 3H
SOL RAD -11A
INP
5r 5r 4r 4r 2r
5N 5N 4N 3N 1N
11H 12H 13H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

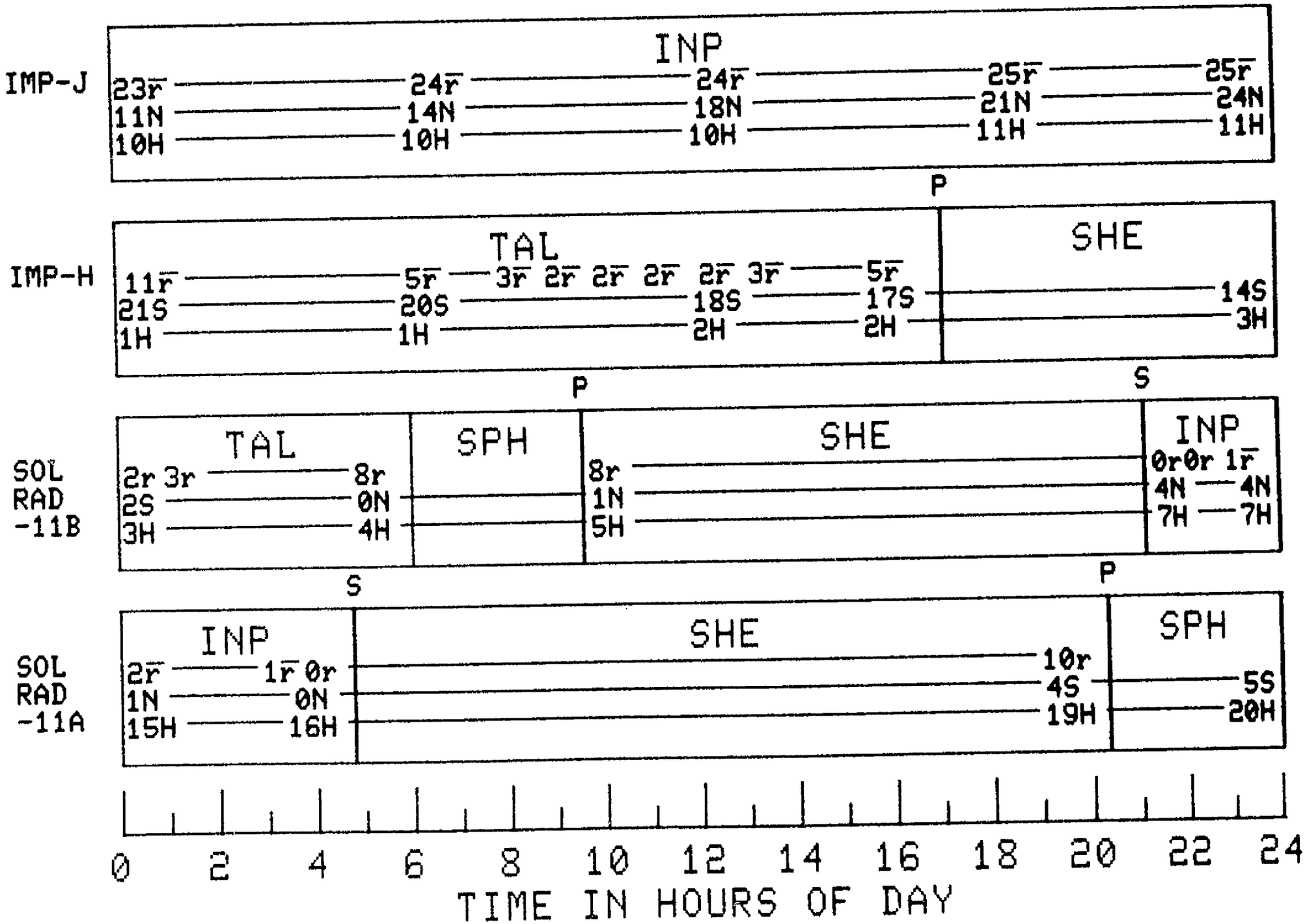
DAY 254 1977

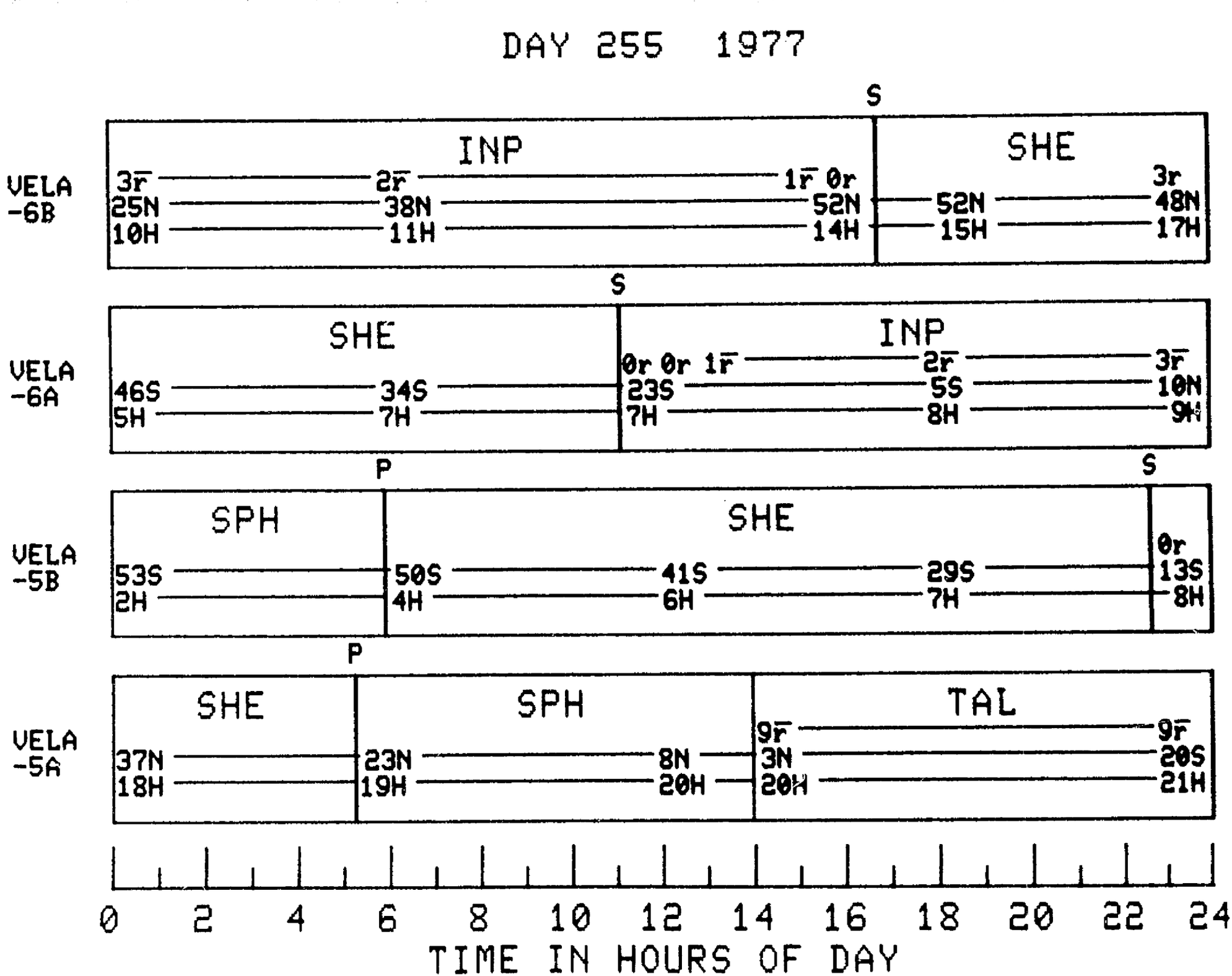

S
SHE
INP
VELA -6B
2r 1r 0r 2r̄ 3r̄ 3r̄
35S 21S 6S 9N 25N
7H 8H 8H 9H 10H
P
TAL
SPH
SHE
VELA -6A
11r̄ 11r̄ 11r̄ 53S 46S
30S 44S 3H 5H
23H 24H
TAL
VELA -5B
7r̄ 11r̄ 14r̄ 16r̄ 15r̄
14S 27S 39S 49S 33S
21H 22H 23H 0H 2H
S
INP
SHE
VELA -5A
2r̄ 1r̄ 1r̄ 0r 2r 6r
37N 47N 53N 51N 37N
11H 12H 14H 16H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 254 1977

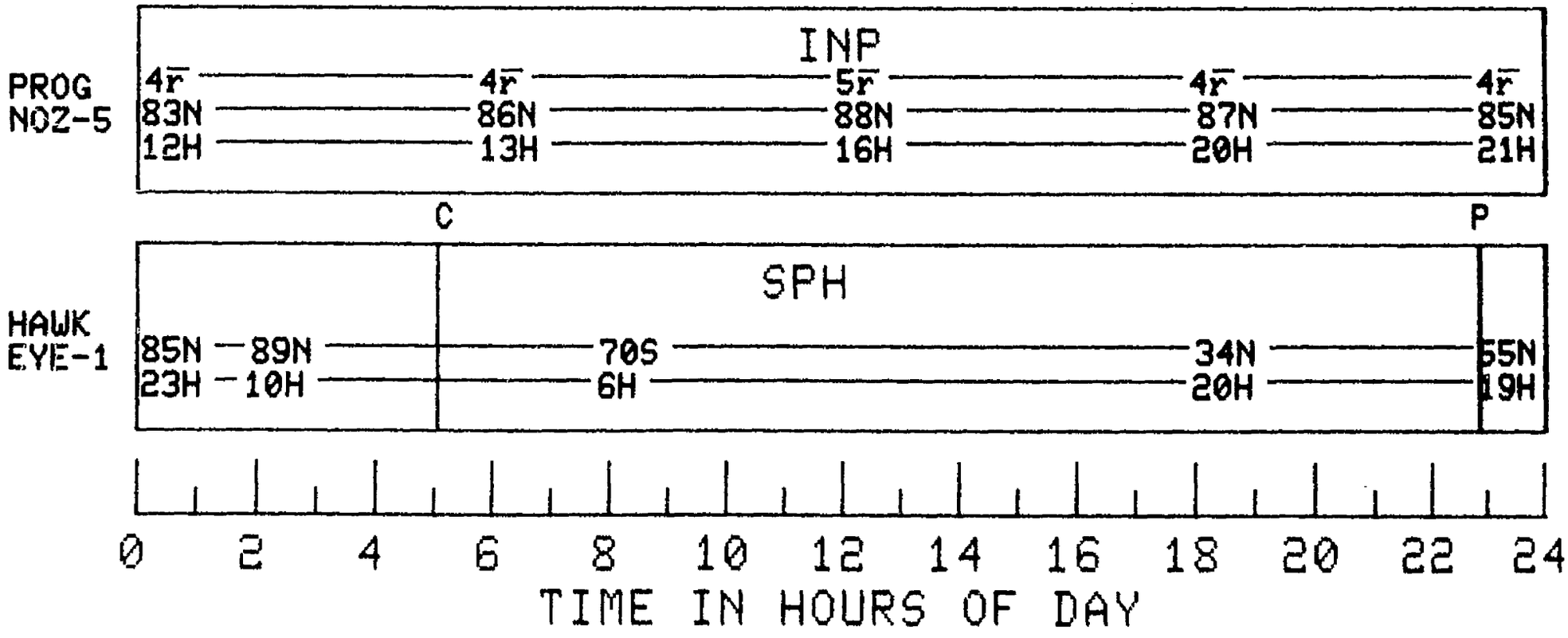

P
S
SPH
SHE
INP
PROG
NOZ-5
33N
11H
62N
11H
0r 1r̄
75N
12H
2r̄
79N
12H
3r̄
83N
12H
P
SHE
SPH
HAWK
EYE-1
59N
19H
52N
18H
47N
19H
70N
22H
84N
23H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 255 1977

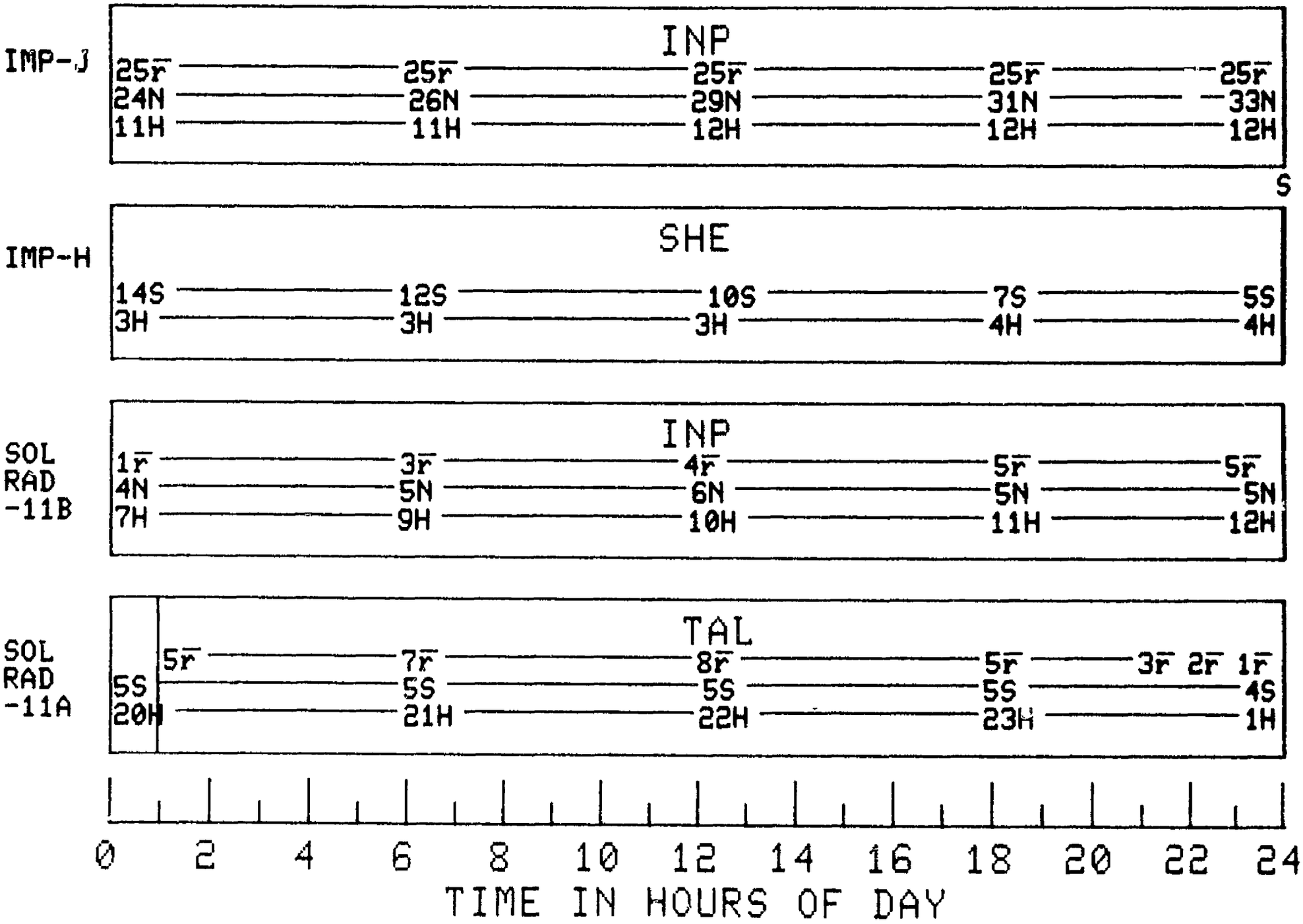

IMP-J
INP
23r 24r 24r 25r 25r
11N 14N 18N 21N 24N
10H 10H 10H 11H 11H
P
IMP-H
TAL
11r 5r 3r 2r 2r 2r 2r 3r 5r
21S 20S 18S 17S 14S
1H 1H 2H 2H 3H
SHE
P
S
SOL RAD -11B
TAL
2r 3r 8r
2S 0N
3H 4H
SPH
SHE
8r
1N
5H
INP
0r 0r 1r
4N 4N
7H 7H
S
P
SOL RAD -11A
INP
2r 1r 0r
1N 0N
15H 16H
SHE
10r
4S
19H
SPH
5S
20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 255 1977
VELA -6B
INP
SHE
S
3r 2r 1r 0r
25N 38N 52N
10H 11H 14H
52N 48N
15H 17H
VELA -6A
SHE
INP
S
46S 34S
5H 7H
0r 0r 1r 2r 3r
23S 5S 10N
7H 8H 9H
VELA -5B
SPH
SHE
P
S
53S 50S 41S 29S 0r
2H 4H 6H 7H 8H
13S
VELA -5A
SHE
SPH
TAL
P
37N 23N 8N
18H 19H 20H
9r 9r
3N 20S
20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

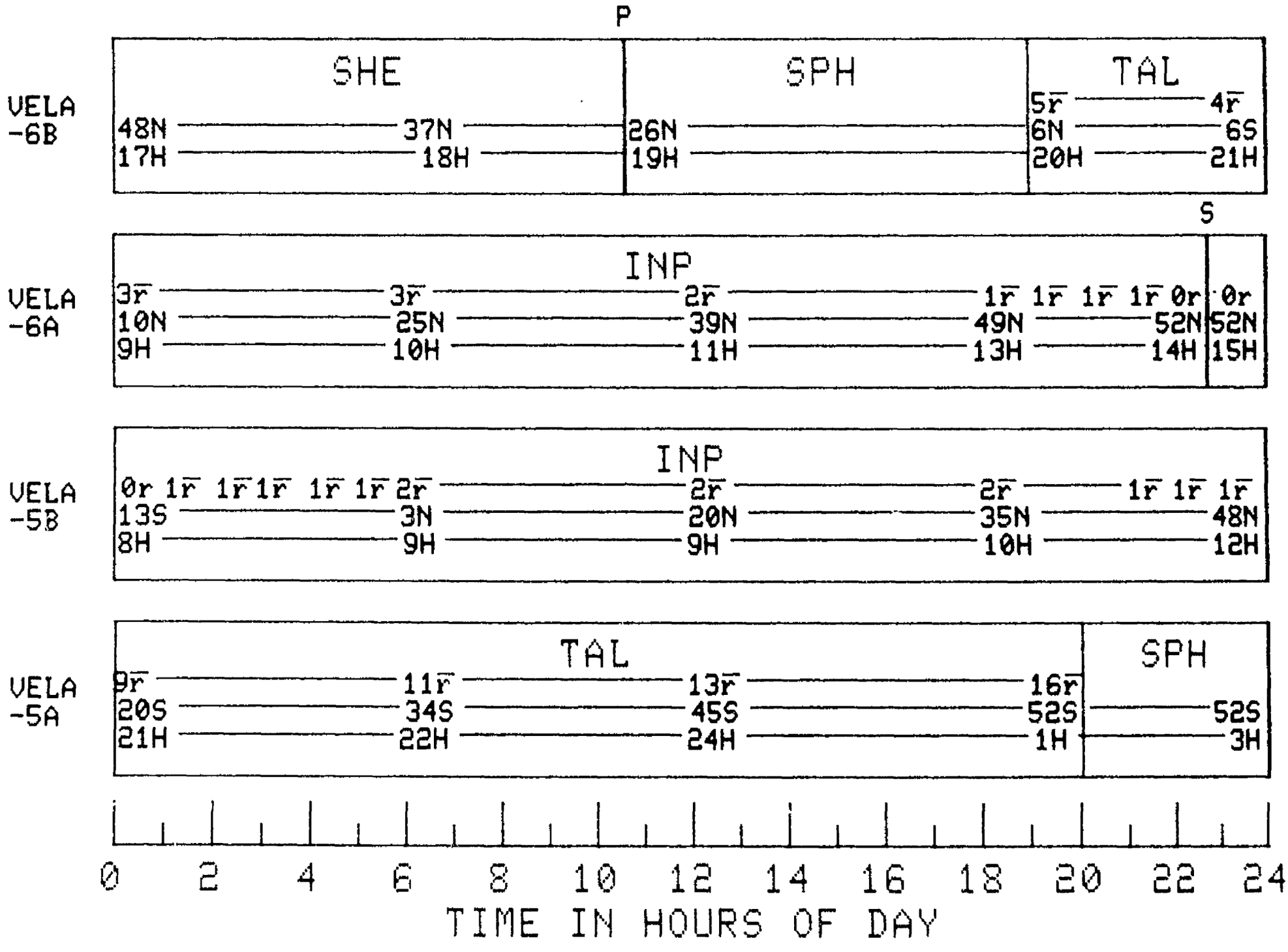
DAY 255 1977


INP
PROG
NOZ-5
4r̄
83N
12H
4r̄
86N
13H
5r̄
88N
16H
4r̄
87N
20H
4r̄
85N
21H
C
P
SPH
HAWK
EYE-1
85N
23H
89N
10H
70S
6H
34N
20H
55N
19H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

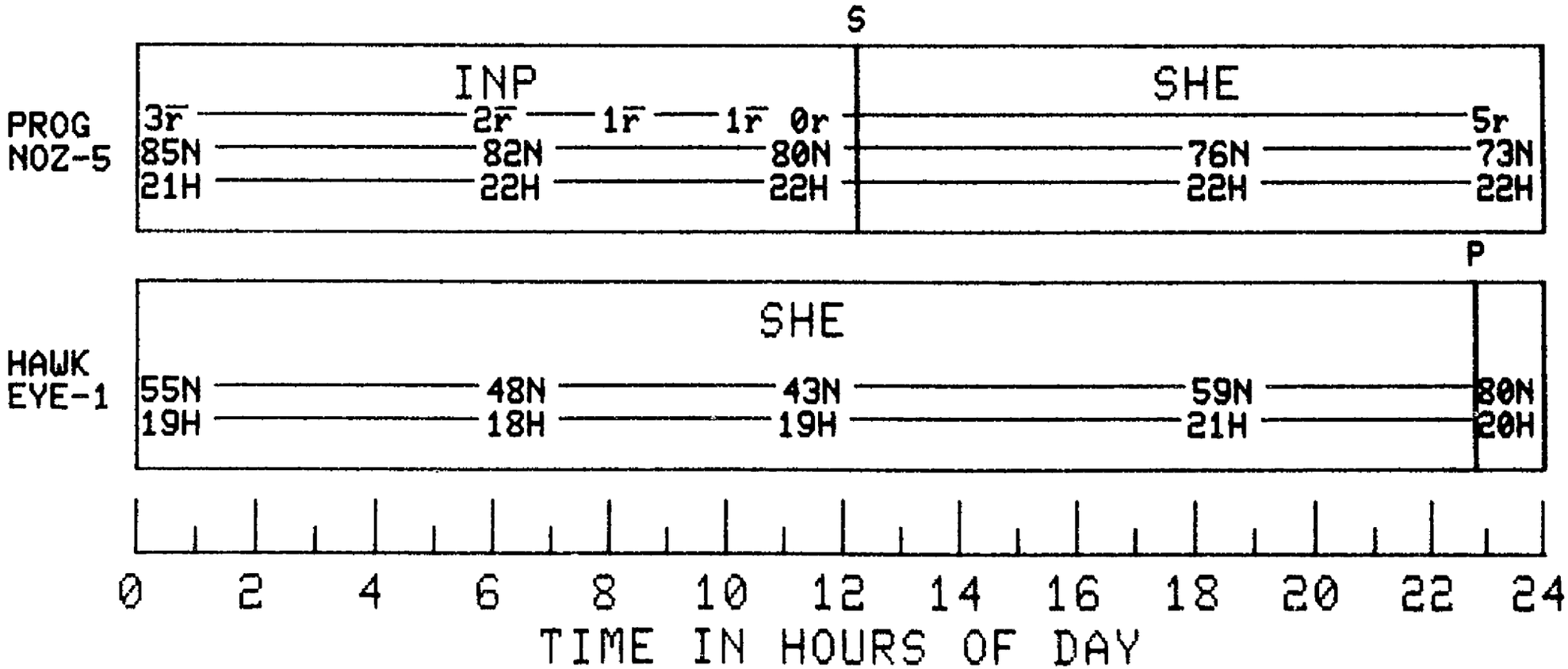
DAY 256 1977


IMP-J
INP
25r̄ 25r̄ 25r̄ 25r̄ 25r̄
24N 26N 29N 31N 33N
11H 11H 12H 12H 12H
S
IMP-H
SHE
14S 12S 10S 7S 5S
3H 3H 3H 4H 4H
SOL RAD -11B
INP
1r̄ 3r̄ 4r̄ 5r̄ 5r̄
4N 5N 6N 5N 5N
7H 9H 10H 11H 12H
SOL RAD -11A
TAL
5r̄ 7r̄ 8r̄ 5r̄ 3r̄ 2r̄ 1r̄
5S 5S 5S 5S 4S
20H 21H 22H 23H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

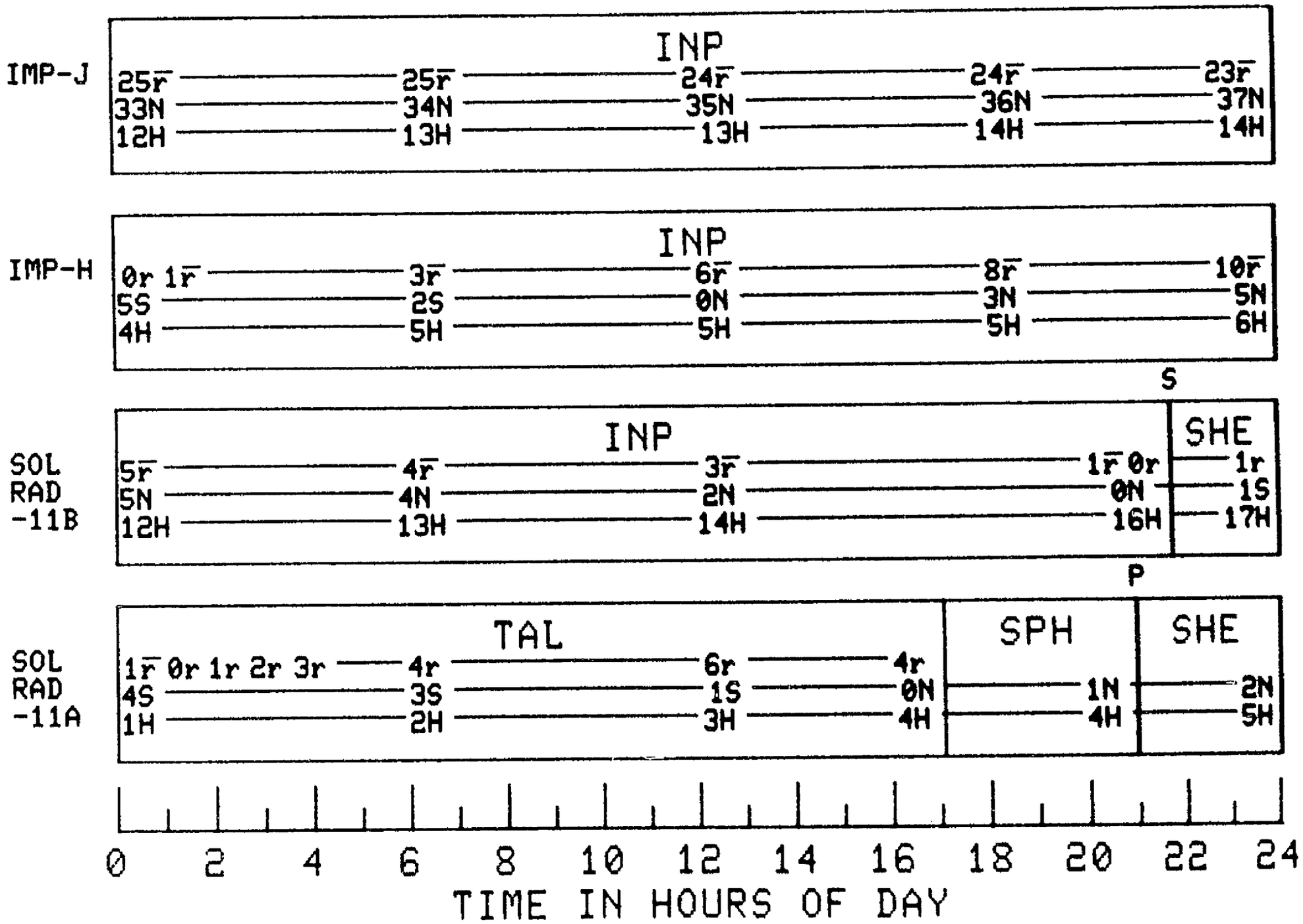
DAY 256 1977


P
SHE
SPH
TAL
VELA -6B
48N 37N 26N 6N 6S
17H 18H 19H 20H 21H
5r 4r
S
INP
VELA -6A
3r 3r 2r 1r 1r 1r 1r 0r 0r
10N 25N 39N 49N 52N 52N
9H 10H 11H 13H 14H 15H
INP
VELA -5B
0r 1r 1r 1r 1r 1r 2r 2r 2r 1r 1r 1r
13S 3N 20N 35N 48N
8H 9H 9H 10H 12H
TAL
SPH
VELA -5A
9r 11r 13r 16r
20S 34S 45S 52S 52S
21H 22H 24H 1H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

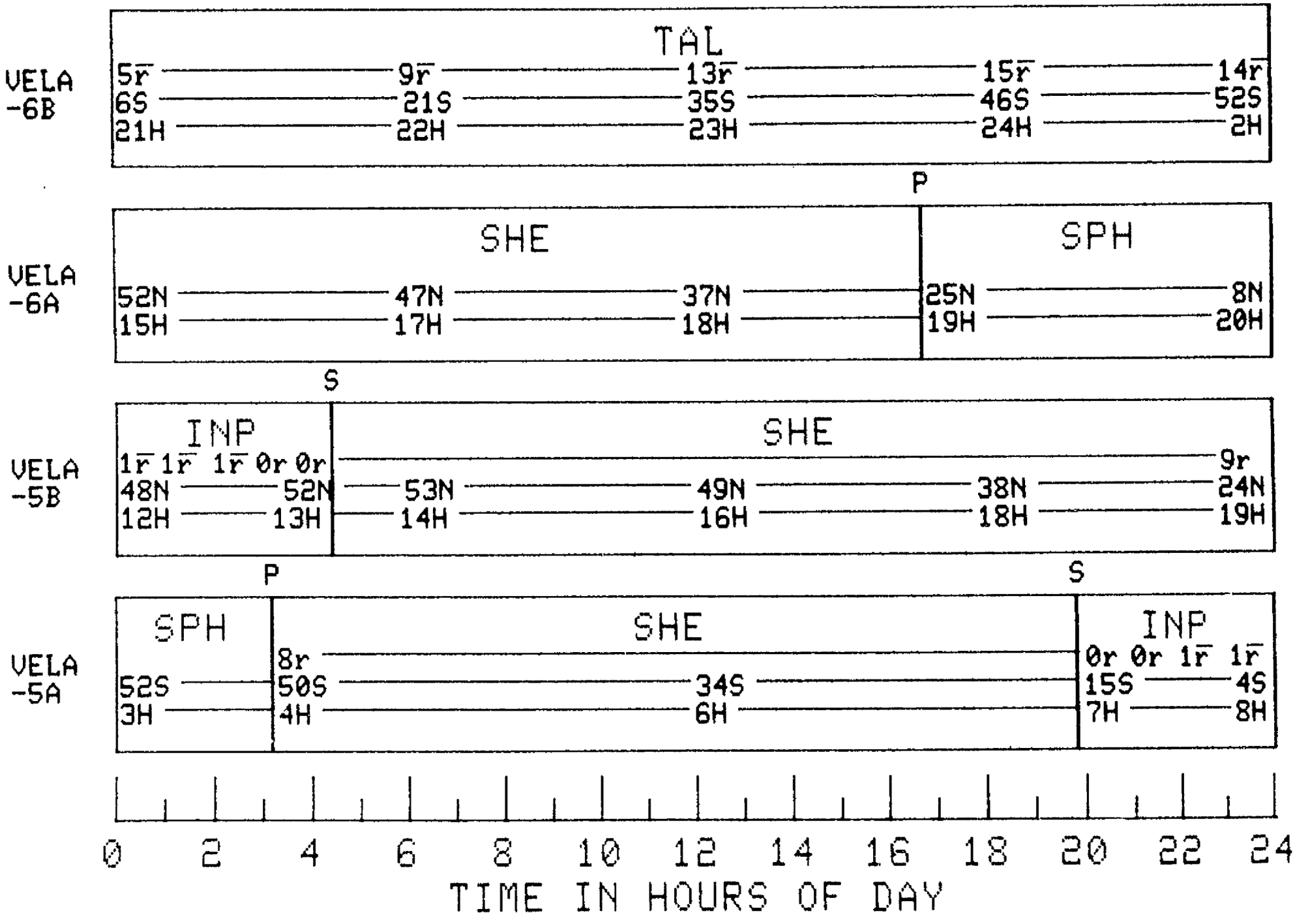
DAY 256 1977


S
INP
SHE
PROG
NOZ-5
3r 2r 1r 1r 0r 5r
85N 82N 80N 76N 73N
21H 22H 22H 22H 22H
P
SHE
HAWK
EYE-1
55N 48N 43N 59N 80N
19H 18H 19H 21H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

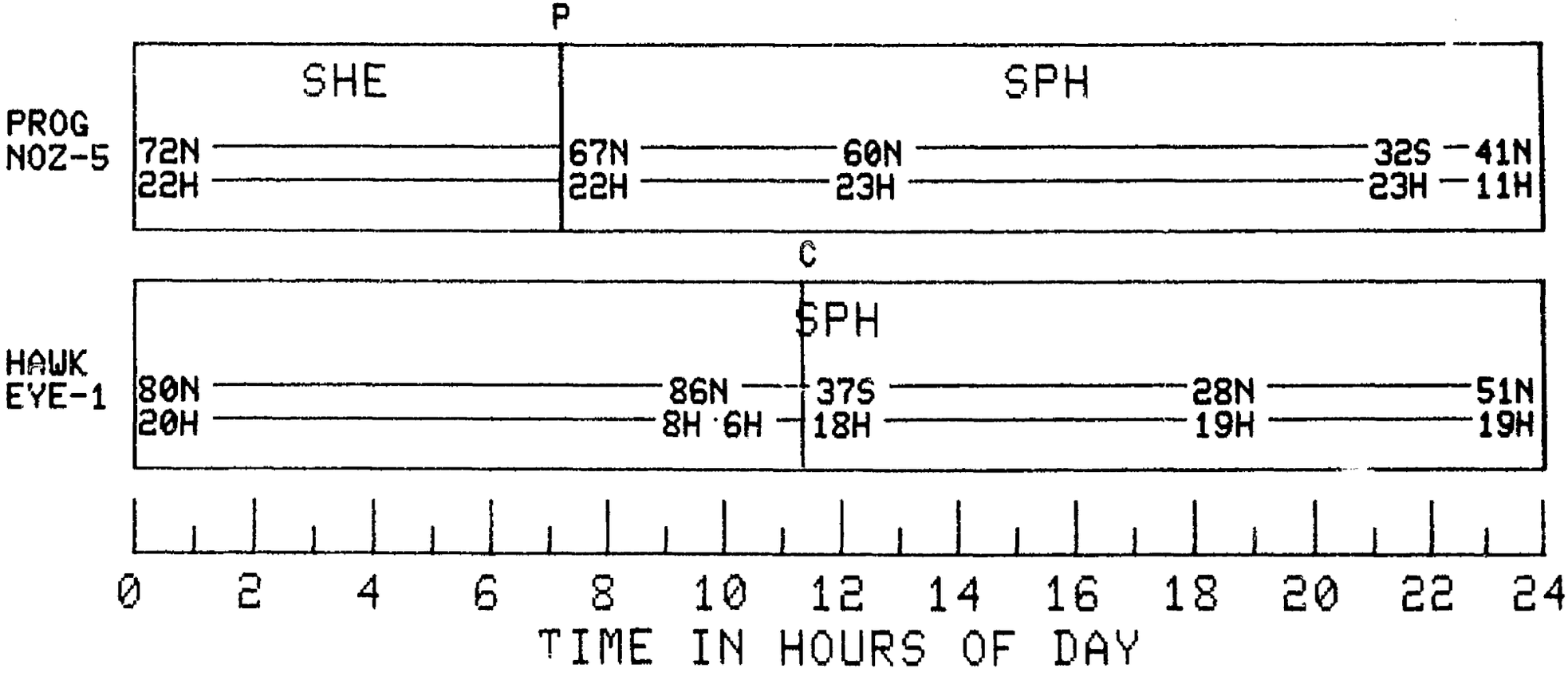
DAY 257 1977


IMP-J
INP
25r̄ 25r̄ 24r̄ 24r̄ 23r̄
33N 34N 35N 36N 37N
12H 13H 13H 14H 14H
IMP-H
INP
0r 1r̄ 3r̄ 6r̄ 8r̄ 10r̄
5S 2S 0N 3N 5N
4H 5H 5H 5H 6H
S
SOL RAD -11B
INP
SHE
5r̄ 4r̄ 3r̄ 1r̄ 0r 1r
5N 4N 2N 0N 1S
12H 13H 14H 16H 17H
P
SOL RAD -11A
TAL
SPH
SHE
1r̄ 0r 1r 2r 3r 4r 6r 4r
4S 3S 1S 0N 1N 2N
1H 2H 3H 4H 4H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

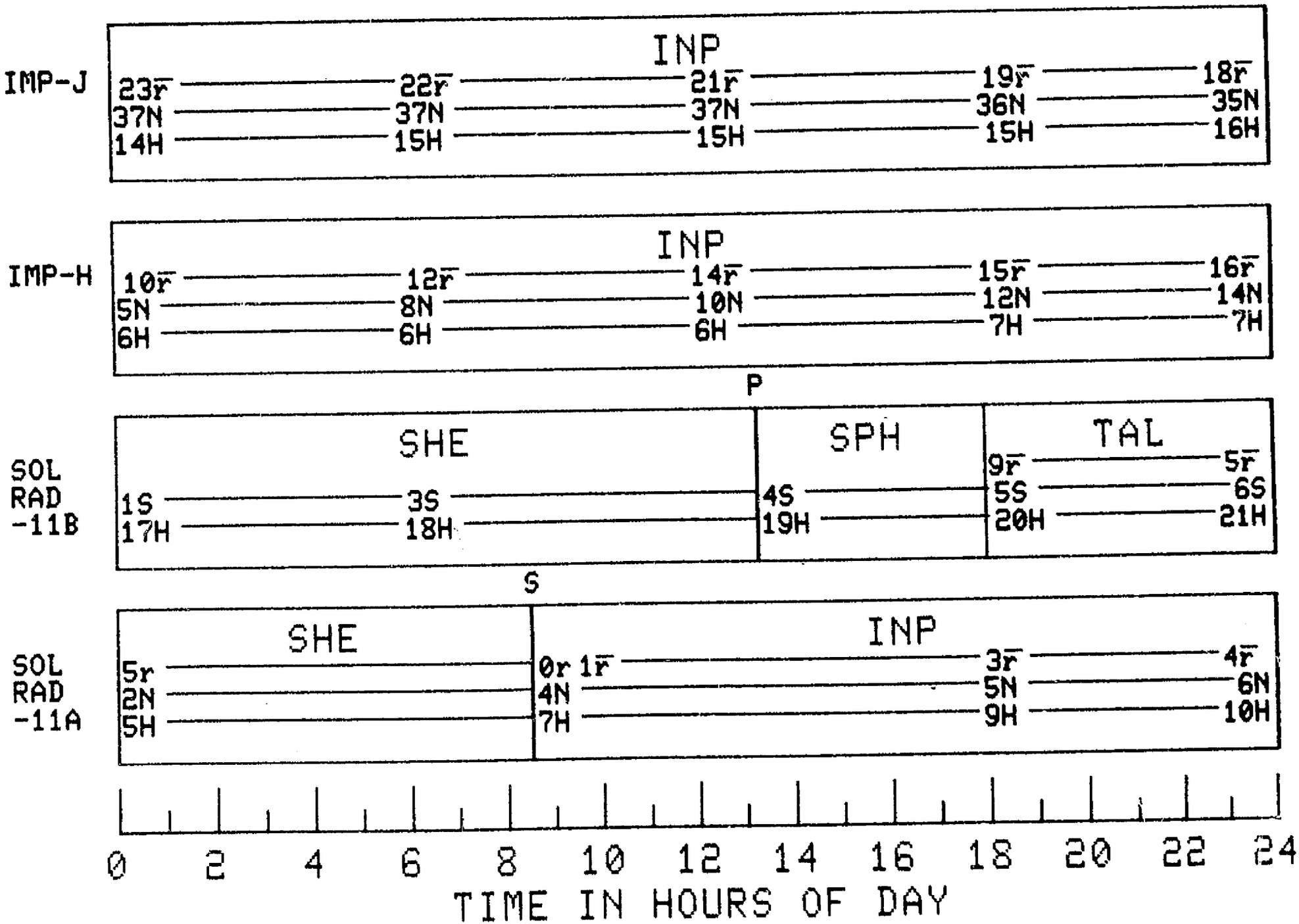
DAY 257 1977


VELA -6B
TAL
5r̄ 9r̄ 13r̄ 15r̄ 14r̄
6S 21S 35S 46S 52S
21H 22H 23H 24H 2H
P
VELA -6A
SHE
SPH
52N 47N 37N 25N 8N
15H 17H 18H 19H 20H
S
VELA -5B
INP
SHE
1r̄ 1r̄ 1r̄ 0r 0r 9r
48N 52N 53N 49N 38N 24N
12H 13H 14H 16H 18H 19H
P
S
VELA -5A
SPH
SHE
INP
8r 0r 0r 1r̄ 1r̄
52S 50S 34S 15S 4S
3H 4H 6H 7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

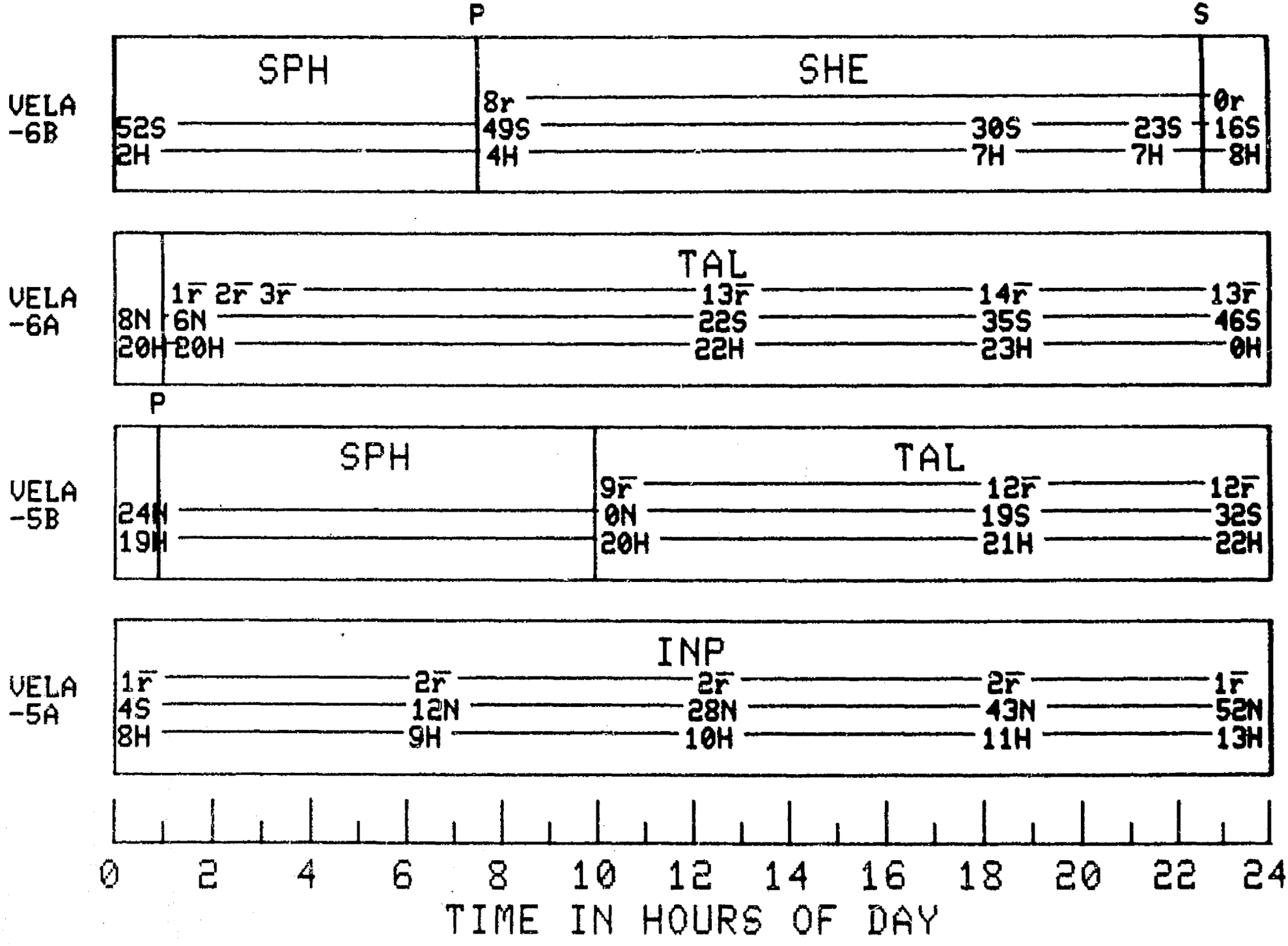
DAY 257 1977


P
SHE
SPH
PROG
NOZ-5
72N
22H
67N
22H
60N
23H
32S
23H
41N
11H
C
SPH
HAWK
EYE-1
80N
20H
86N
8H 6H
37S
18H
28N
19H
51N
19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

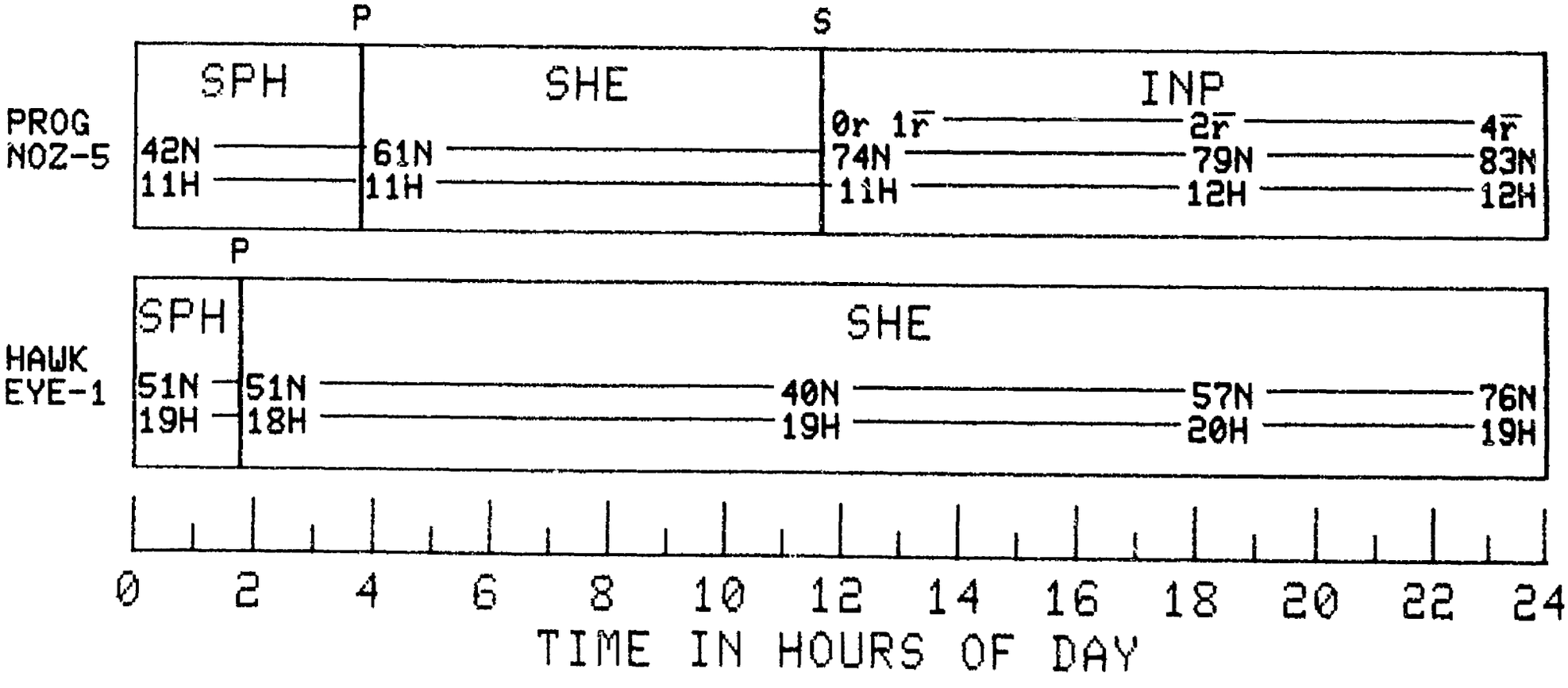
DAY 258 1977


IMP-J
INP
23r 22r 21r 19r 18r
37N 37N 37N 36N 35N
14H 15H 15H 15H 16H
IMP-H
INP
10r 12r 14r 15r 16r
5N 8N 10N 12N 14N
6H 6H 6H 7H 7H
P
SOL RAD -11B
SHE
SPH
TAL
1S 3S 4S 9r 5r
17H 18H 19H 5S 6S
20H 21H
S
SOL RAD -11A
SHE
INP
5r 0r 1r 3r 4r
2N 4N 5N 6N
5H 7H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

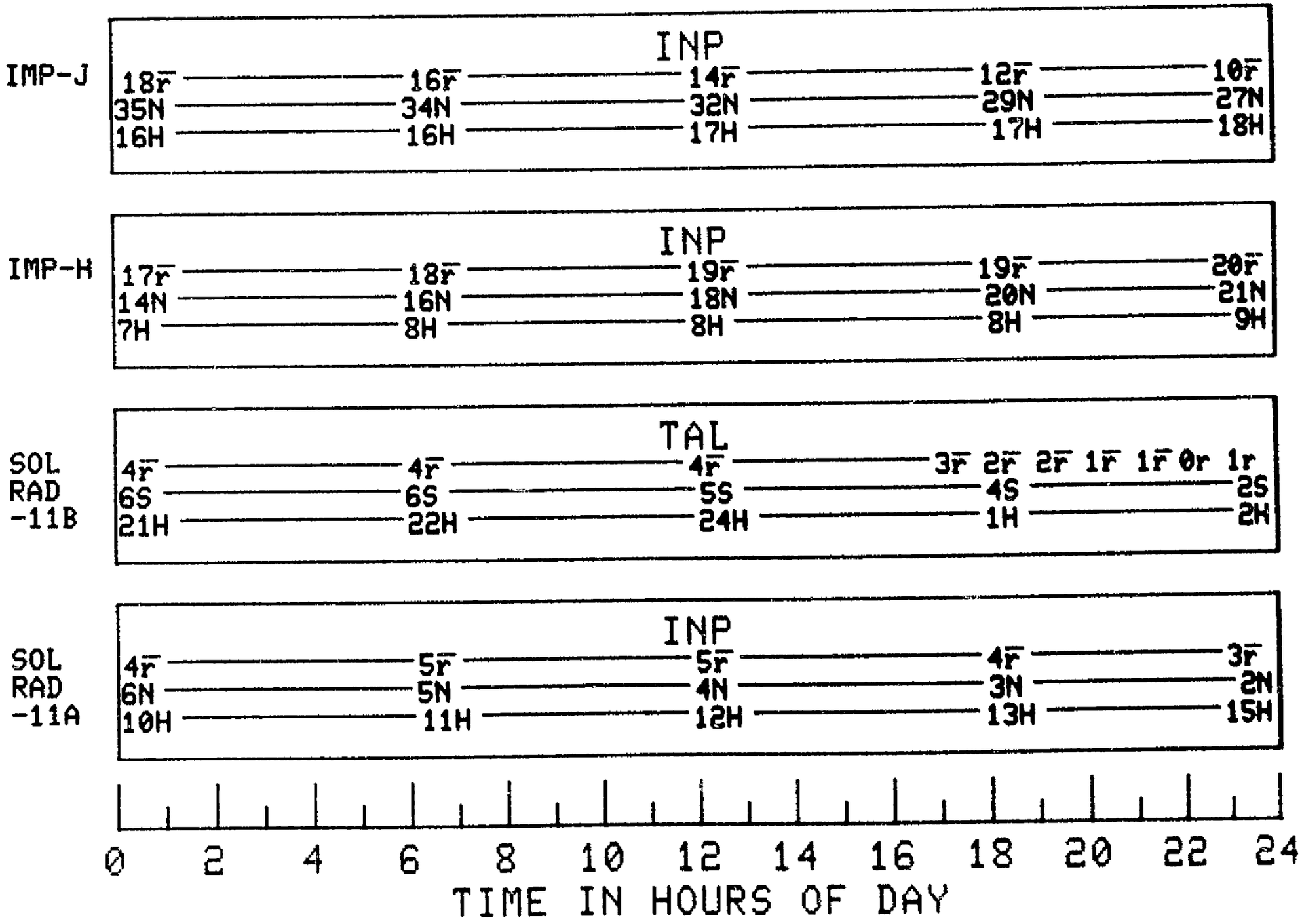
DAY 258 1977


P
S
SPH
SHE
VELA -6B
52S 2H
8r 49S 4H
30S 7H
23S 7H
0r 16S 8H
TAL
VELA -6A
1r 2r 3r
8N 6N 20H 20H
13r 22S 22H
14r 35S 23H
13r 46S 0H
P
SPH
TAL
VELA -5B
24N 19H
9r 0N 20H
12r 19S 21H
12r 32S 22H
INP
VELA -5A
1r 4S 8H
2r 12N 9H
2r 28N 10H
2r 43N 11H
1r 52N 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

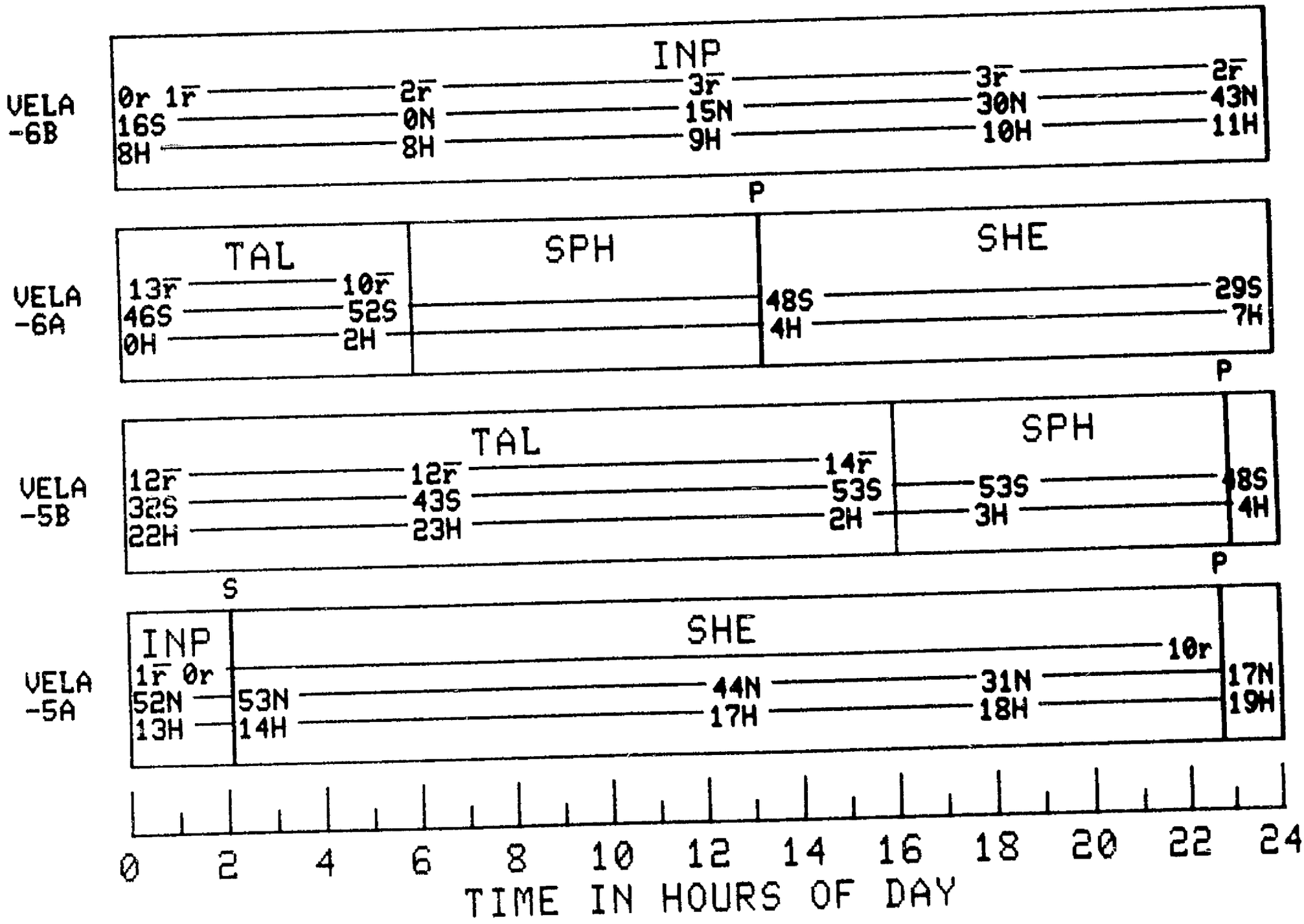
DAY 258 1977


P
S
SPH
SHE
INP
PROG
NOZ-5
42N
11H
61N
11H
0r 1r
74N
11H
2r
79N
12H
4r
83N
12H
P
SPH
SHE
HAWK
EYE-1
51N
19H
51N
18H
40N
19H
57N
20H
76N
19H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

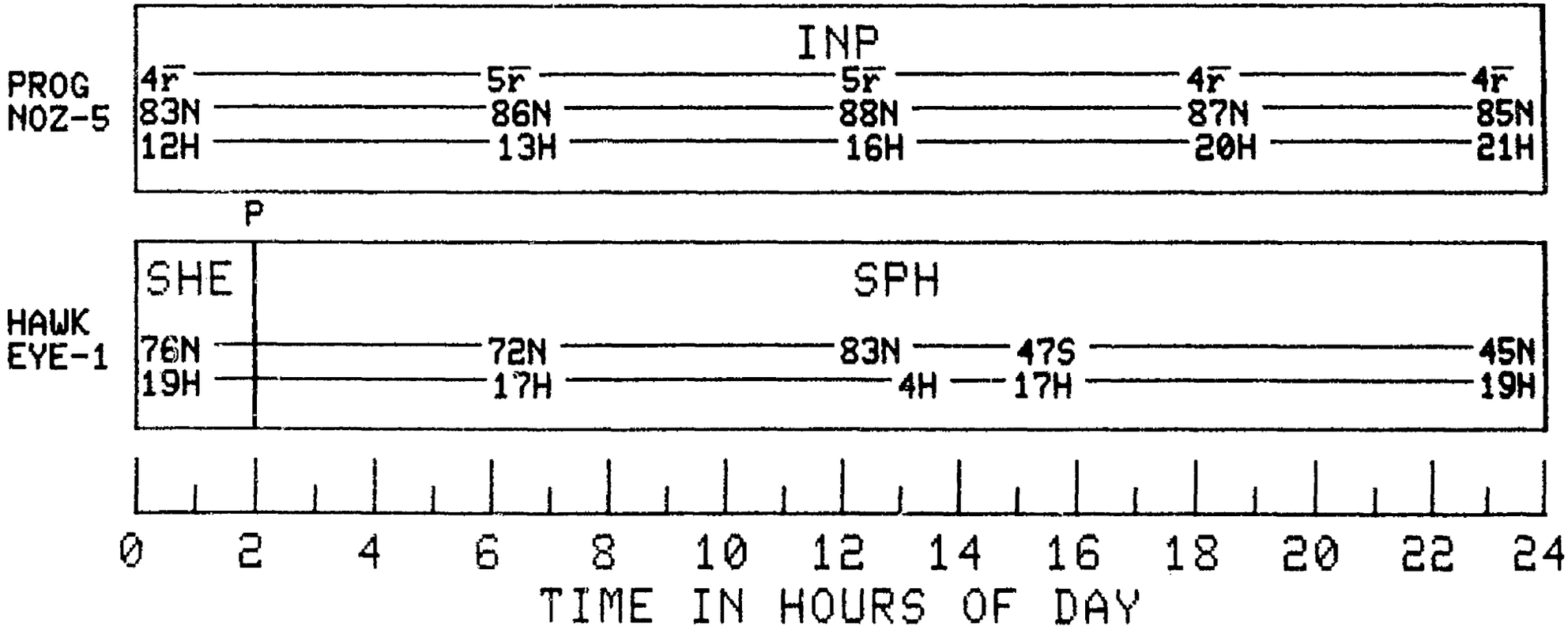
DAY 259 1977


IMP-J
INP
18r̄ 16r̄ 14r̄ 12r̄ 10r̄
35N 34N 32N 29N 27N
16H 16H 17H 17H 18H
IMP-H
INP
17r̄ 18r̄ 19r̄ 19r̄ 20r̄
14N 16N 18N 20N 21N
7H 8H 8H 8H 9H
SOL RAD -11B
TAL
4r̄ 4r̄ 4r̄ 3r̄ 2r̄ 2r̄ 1r̄ 1r̄ 0r 1r
6S 6S 5S 4S 2S
21H 22H 24H 1H 2H
SOL RAD -11A
INP
4r̄ 5r̄ 5r̄ 4r̄ 3r̄
6N 5N 4N 3N 2N
10H 11H 12H 13H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

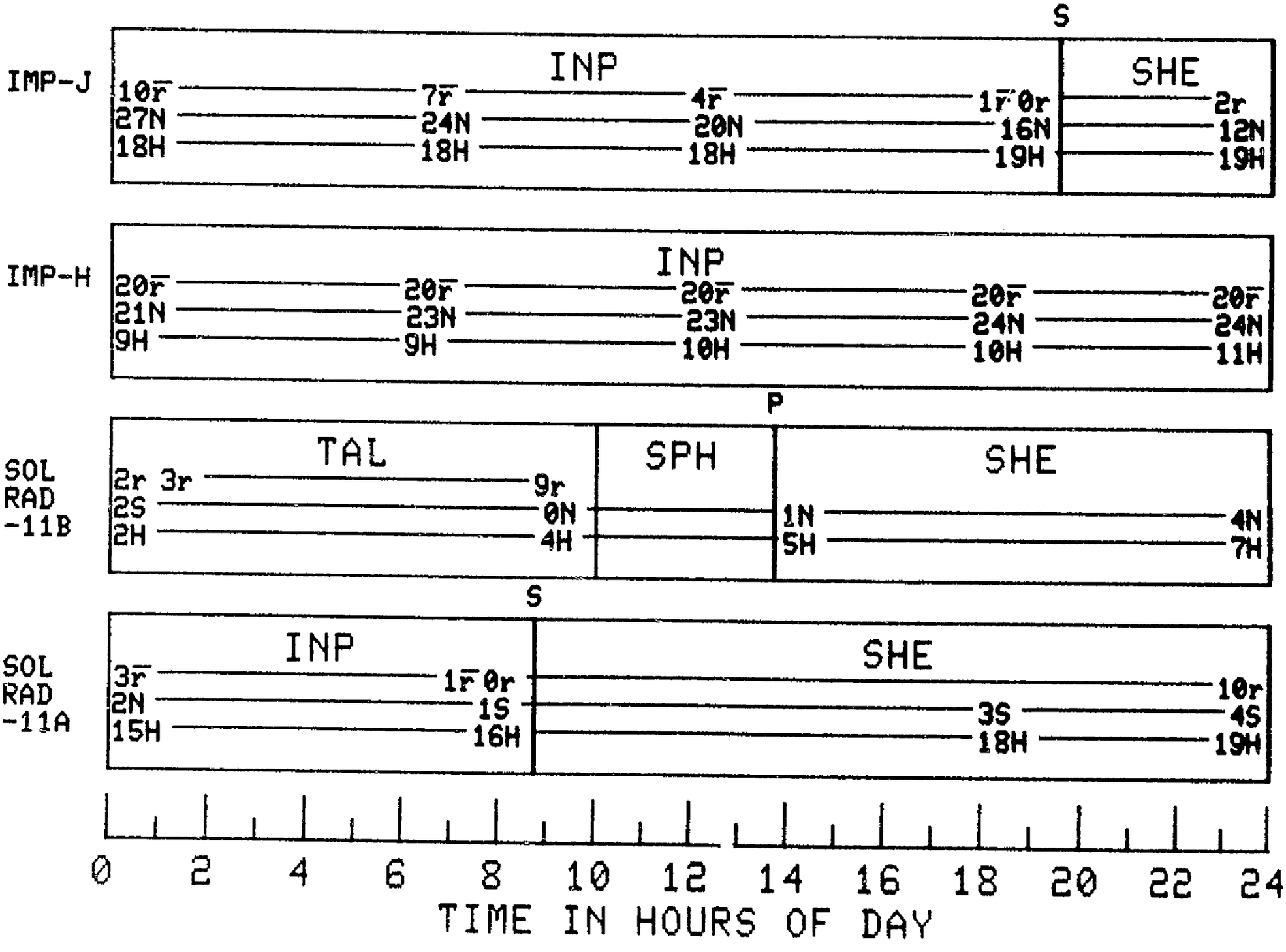
DAY 259 1977

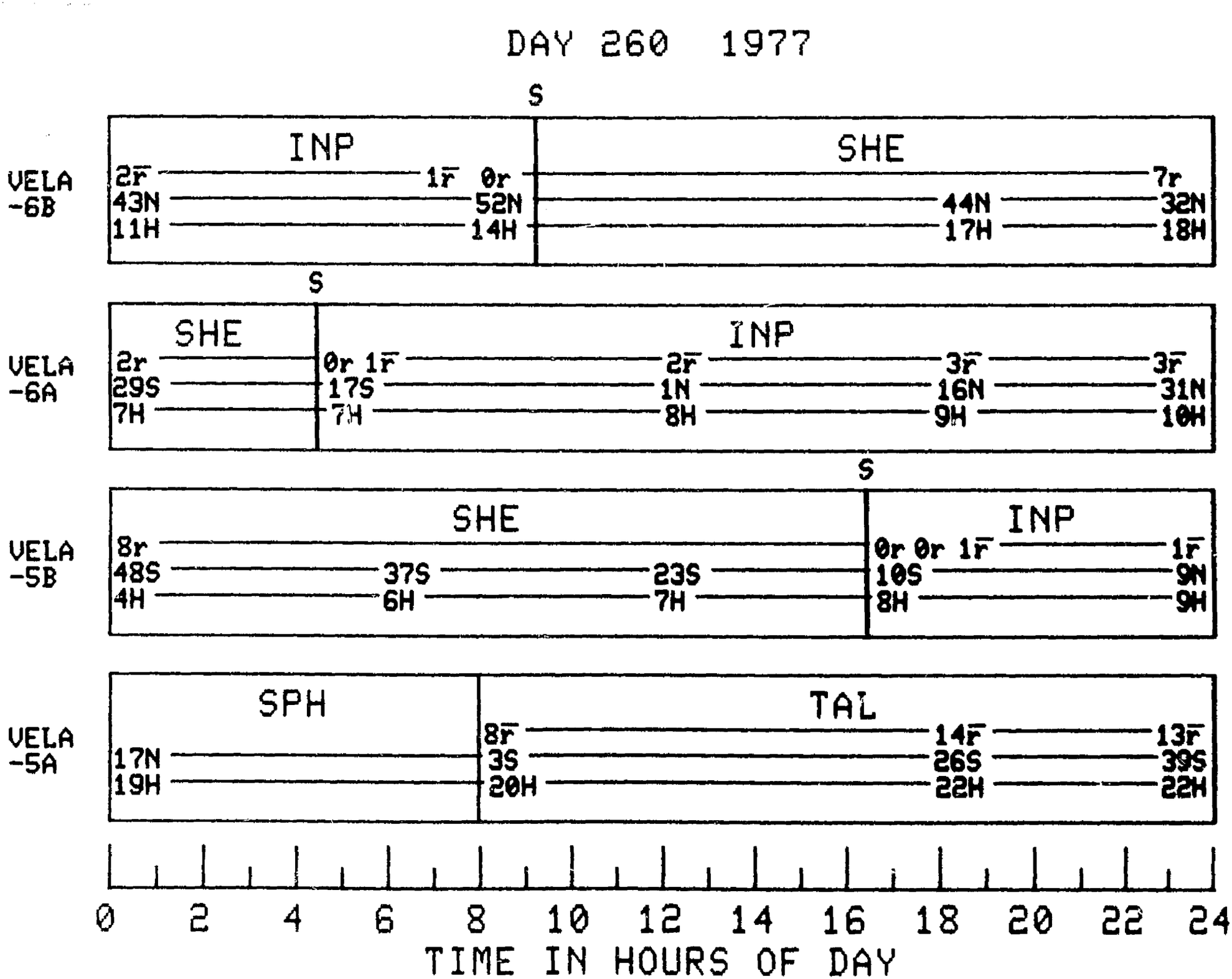

VELA -6B
INP
0r 1r
16S
8H
2r
0N
8H
3r
15N
9H
3r
30N
10H
2r
43N
11H
P
VELA -6A
TAL
13r
46S
0H
10r
52S
2H
SPH
SHE
48S
4H
29S
7H
P
VELA -5B
TAL
12r
32S
22H
12r
43S
23H
14r
53S
2H
SPH
53S
3H
48S
4H
P
S
VELA -5A
INP
1r 0r
52N
13H
SHE
53N
14H
44N
17H
31N
18H
10r
17N
19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 259 1977

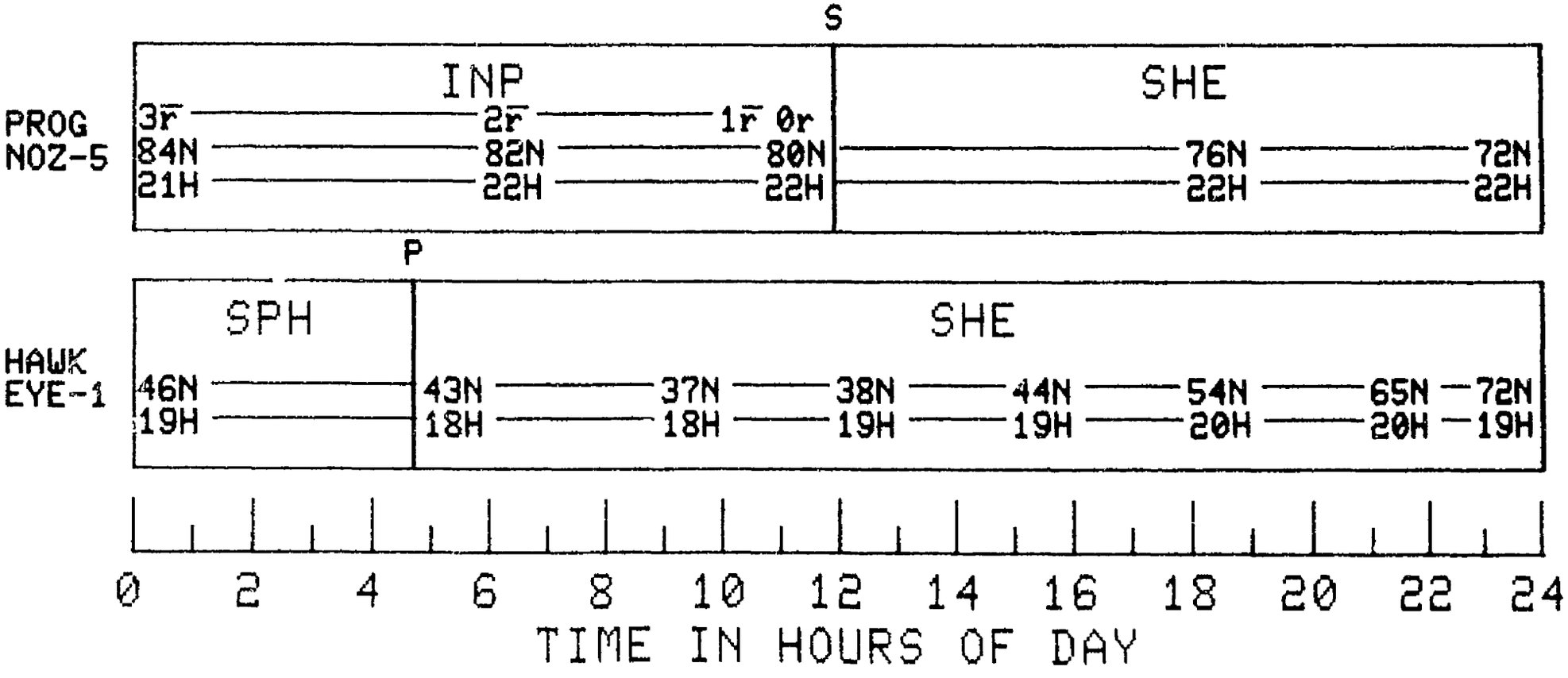

INP
PROG
NOZ-5
4r
83N
12H
5r
86N
13H
5r
88N
16H
4r
87N
20H
4r
85N
21H
P
SHE
SPH
HAWK
EYE-1
76N
19H
72N
17H
83N
4H
47S
17H
45N
19H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 260 1977

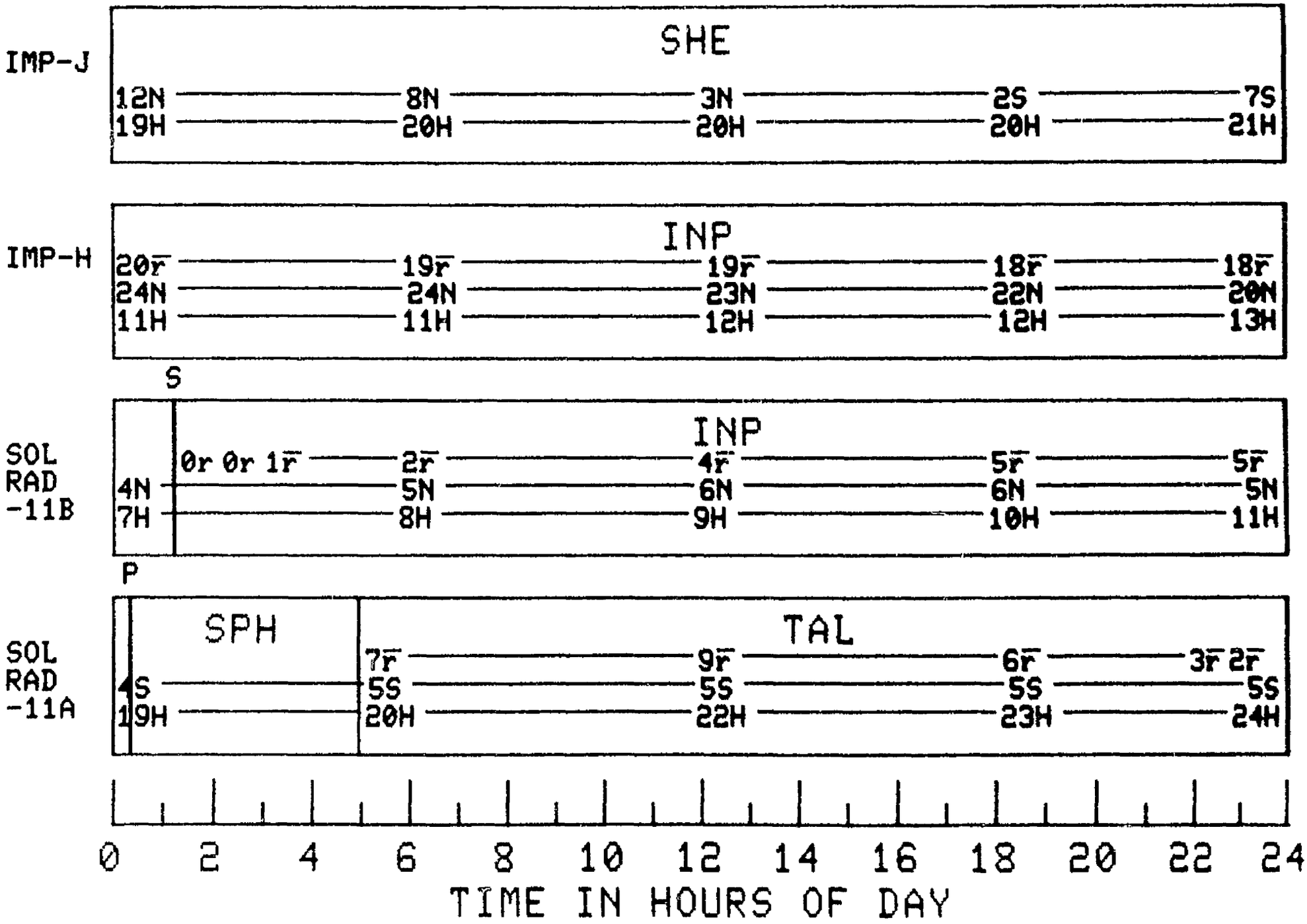

S
IMP-J
INP
SHE
10r 7r 4r 1r 0r 2r
27N 24N 20N 16N 12N
18H 18H 18H 19H 19H
IMP-H
INP
20r 20r 20r 20r 20r
21N 23N 23N 24N 24N
9H 9H 10H 10H 11H
P
SOL RAD -11B
TAL
SPH
SHE
2r 3r 9r
2S 0N
2H 4H
1N 4N
5H 7H
S
SOL RAD -11A
INP
SHE
3r 1r 0r 10r
2N 1S 3S 4S
15H 16H 18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 260 1977
S
INP
SHE
VELA -6B
2r 1r 0r 7r
43N 52N 44N 32N
11H 14H 17H 18H
S
SHE
INP
VELA -6A
2r 0r 1r 2r 3r 3r
29S 17S 1N 16N 31N
7H 7H 8H 9H 10H
S
SHE
INP
VELA -5B
8r 0r 0r 1r 1r
48S 37S 23S 10S 9N
4H 6H 7H 8H 9H
SPH
TAL
VELA -5A
17N 8r 14r 13r
19H 3S 26S 39S
20H 22H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

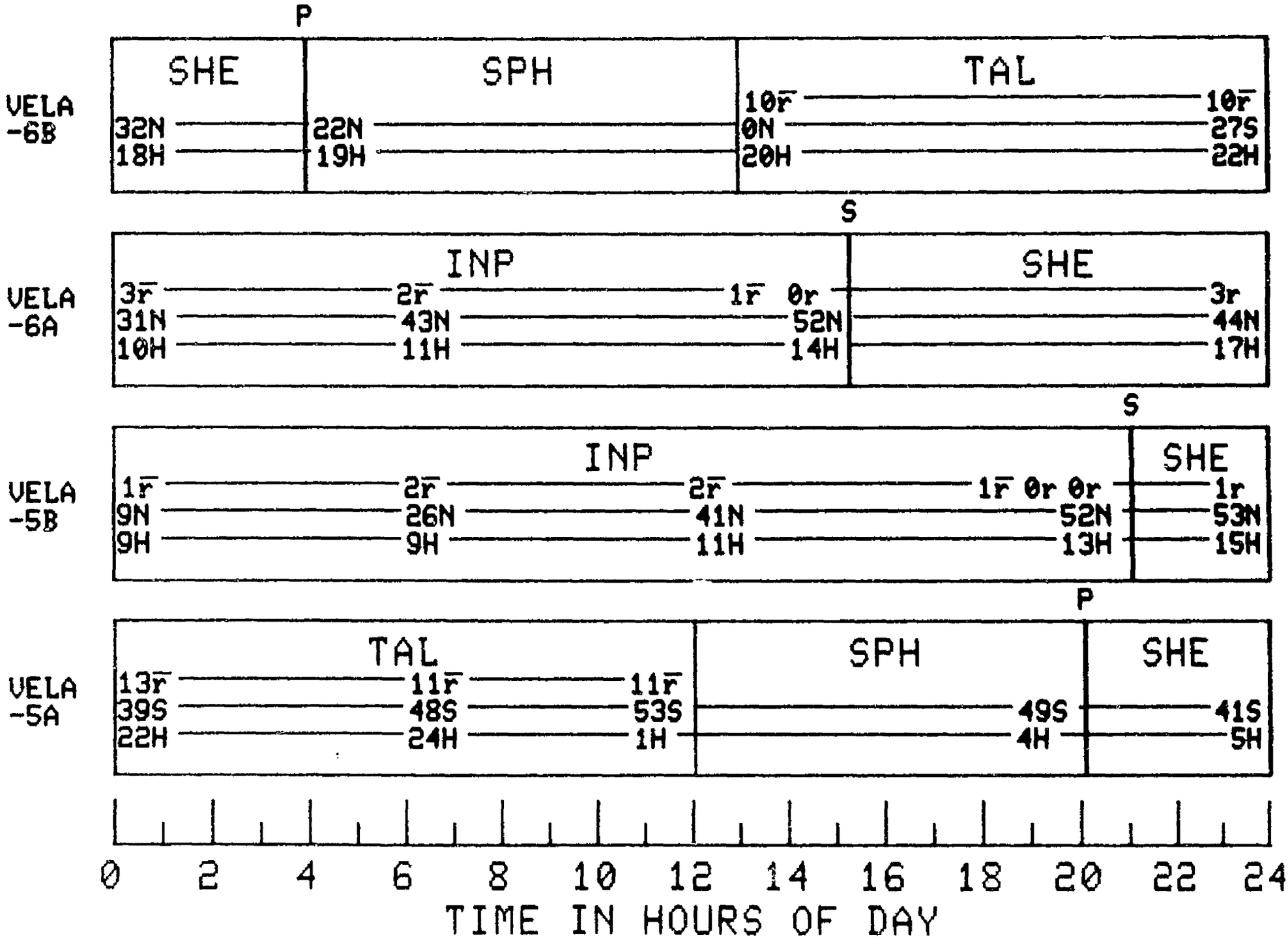
DAY 260 1977


S
INP
SHE
PROG
NOZ-5
3r
2r
1r 0r
84N
82N
80N
76N
72N
21H
22H
22H
22H
22H
P
SPH
SHE
HAWK
EYE-1
46N
43N
37N
38N
44N
54N
65N
72N
19H
18H
18H
19H
19H
20H
20H
19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

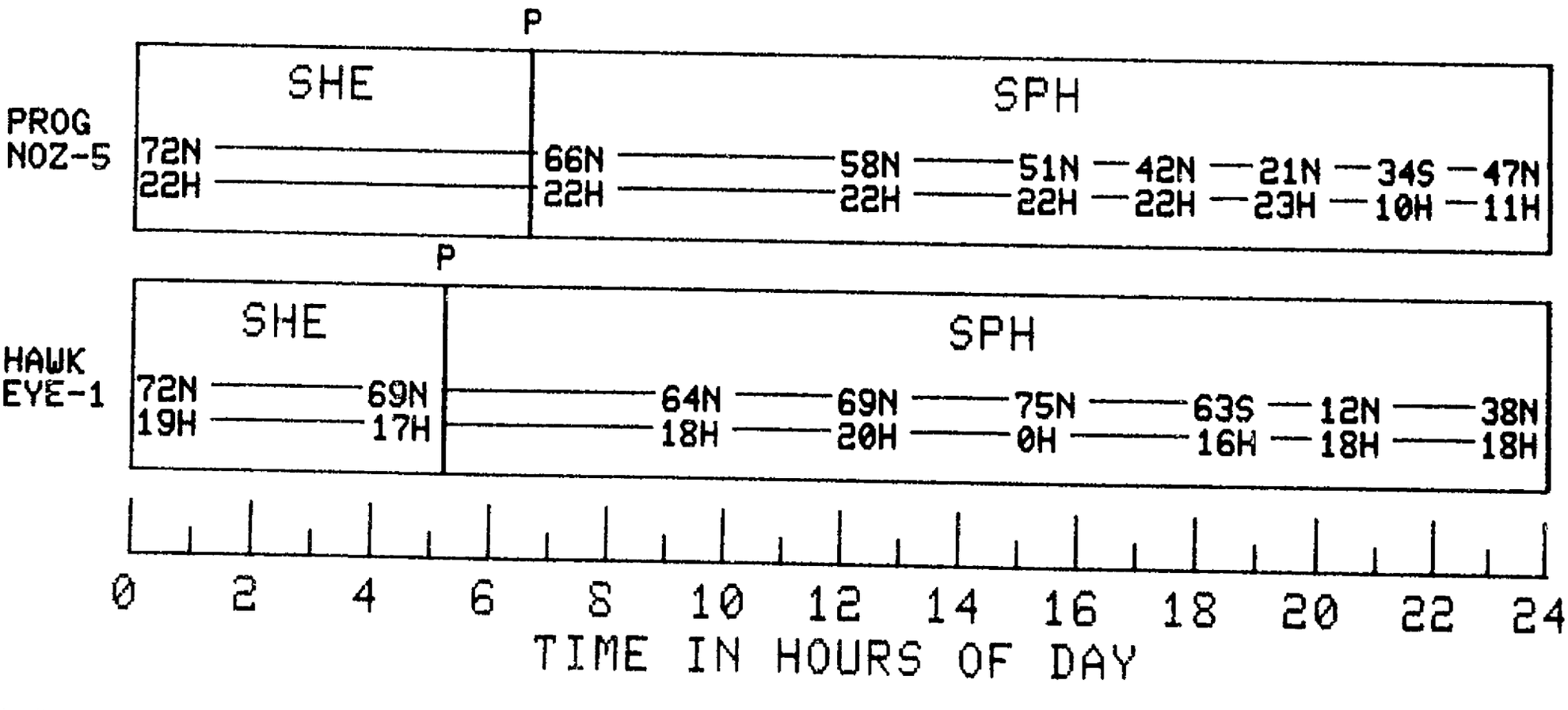
DAY 261 1977


IMP-J
SHE
12N 8N 3N 2S 7S
19H 20H 20H 20H 21H
IMP-H
INP
20r 19r 19r 18r 18r
24N 24N 23N 22N 20N
11H 11H 12H 12H 13H
S
SOL RAD -11B
INP
0r 0r 1r 2r 4r 5r 5r
4N 5N 6N 6N 5N
7H 8H 9H 10H 11H
P
SOL RAD -11A
SPH
TAL
7r 9r 6r 3r 2r
4S 5S 5S 5S 5S
19H 20H 22H 23H 24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

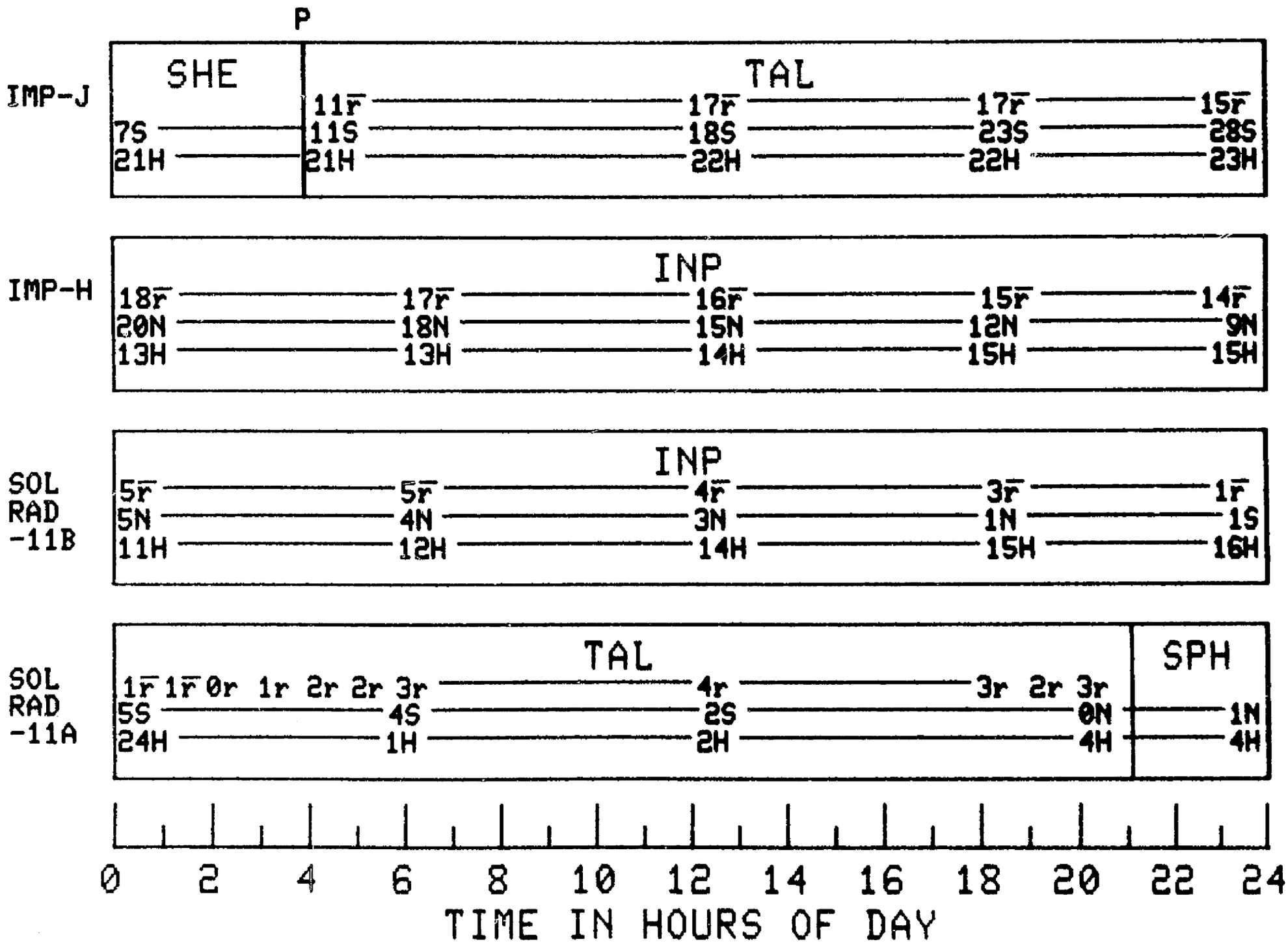
DAY 261 1977


P
SHE
SPH
TAL
VELA -6B
32N 18H
22N 19H
10r̄ 0N 20H
10r̄ 27S 22H
S
INP
SHE
VELA -6A
3r̄ 31N 10H
2r̄ 43N 11H
1r̄ 0r 52N 14H
3r 44N 17H
S
INP
SHE
VELA -5B
1r̄ 9N 9H
2r̄ 26N 9H
2r̄ 41N 11H
1r̄ 0r 0r 52N 13H
1r 53N 15H
P
TAL
SPH
SHE
VELA -5A
13r̄ 39S 22H
11r̄ 48S 24H
11r̄ 53S 1H
49S 4H
41S 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

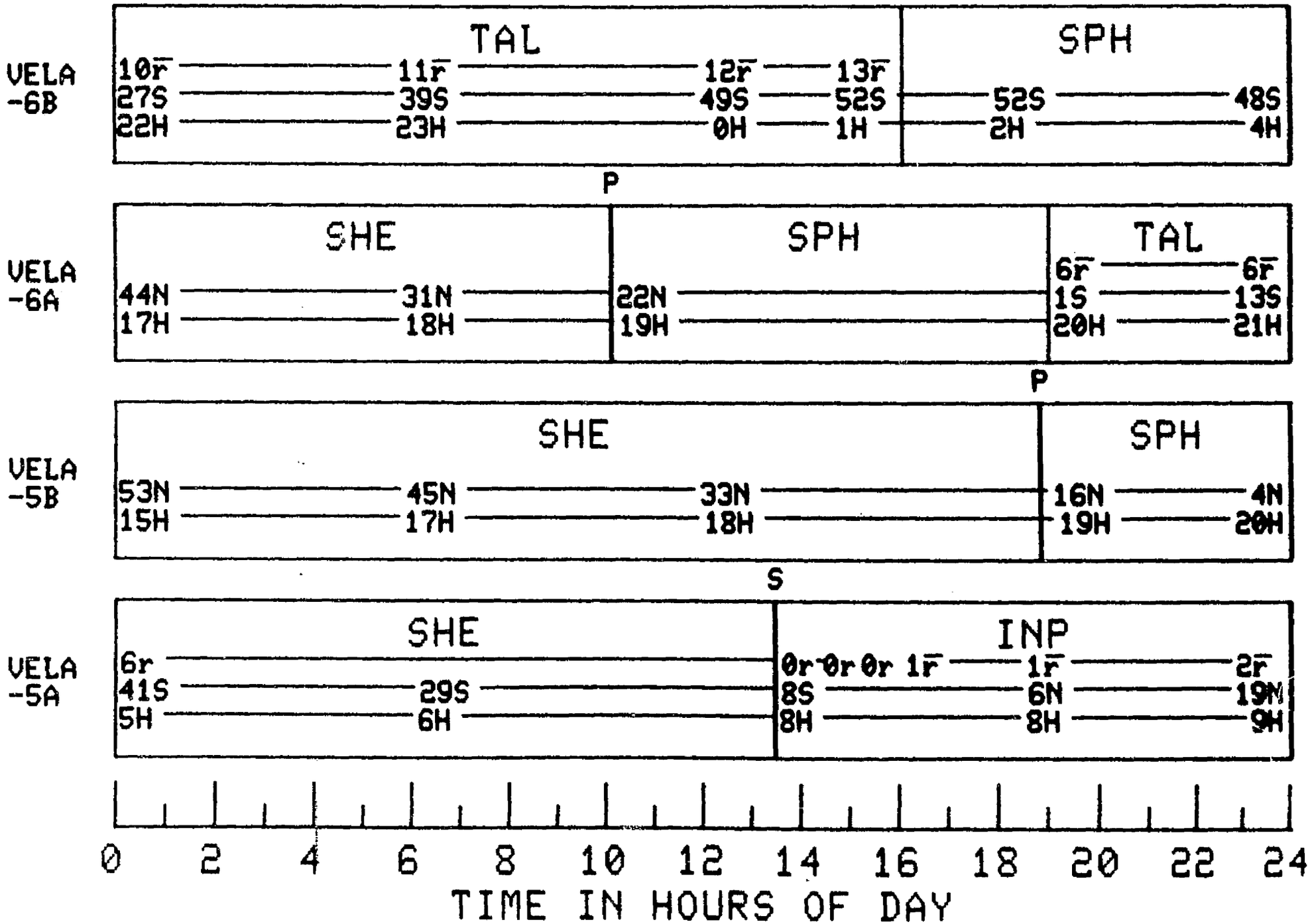
DAY 261 1977


P
SHE
SPH
PROG
NOZ-5
72N
22H
66N
22H
58N
22H
51N
22H
42N
22H
21N
23H
34S
10H
47N
11H
P
SHE
SPH
HAWK
EYE-1
72N
19H
69N
17H
64N
18H
69N
20H
75N
0H
63S
16H
12N
18H
38N
18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

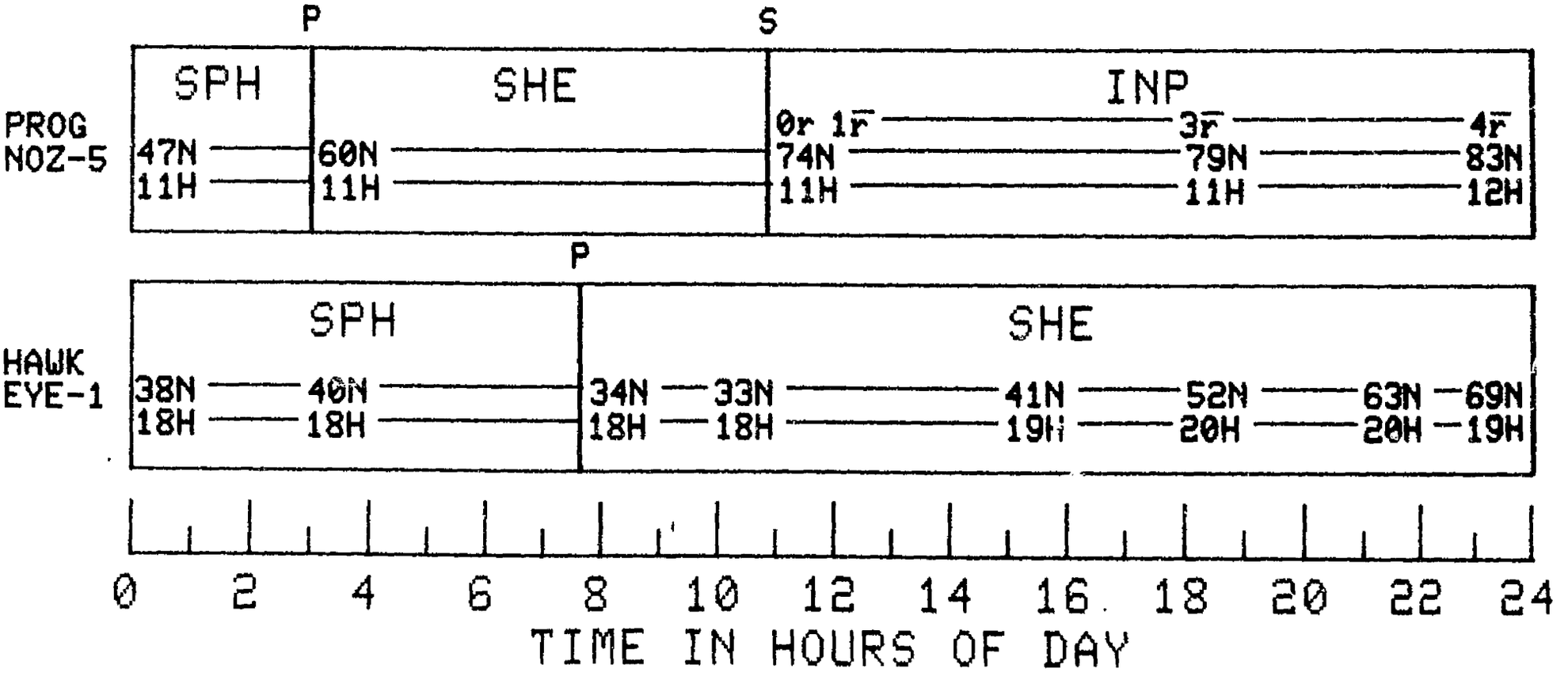
DAY 262 1977


P
IMP-J
SHE
TAL
11r 17r 17r 15r
7S 11S 18S 23S 28S
21H 21H 22H 22H 23H
IMP-H
INP
18r 17r 16r 15r 14r
20N 18N 15N 12N 9N
13H 13H 14H 15H 15H
SOL RAD -11B
INP
5r 5r 4r 3r 1r
5N 4N 3N 1N 1S
11H 12H 14H 15H 16H
SOL RAD -11A
TAL
SPH
1r 1r 0r 1r 2r 2r 3r 4r 3r 2r 3r
5S 4S 2S 0N 1N
24H 1H 2H 4H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

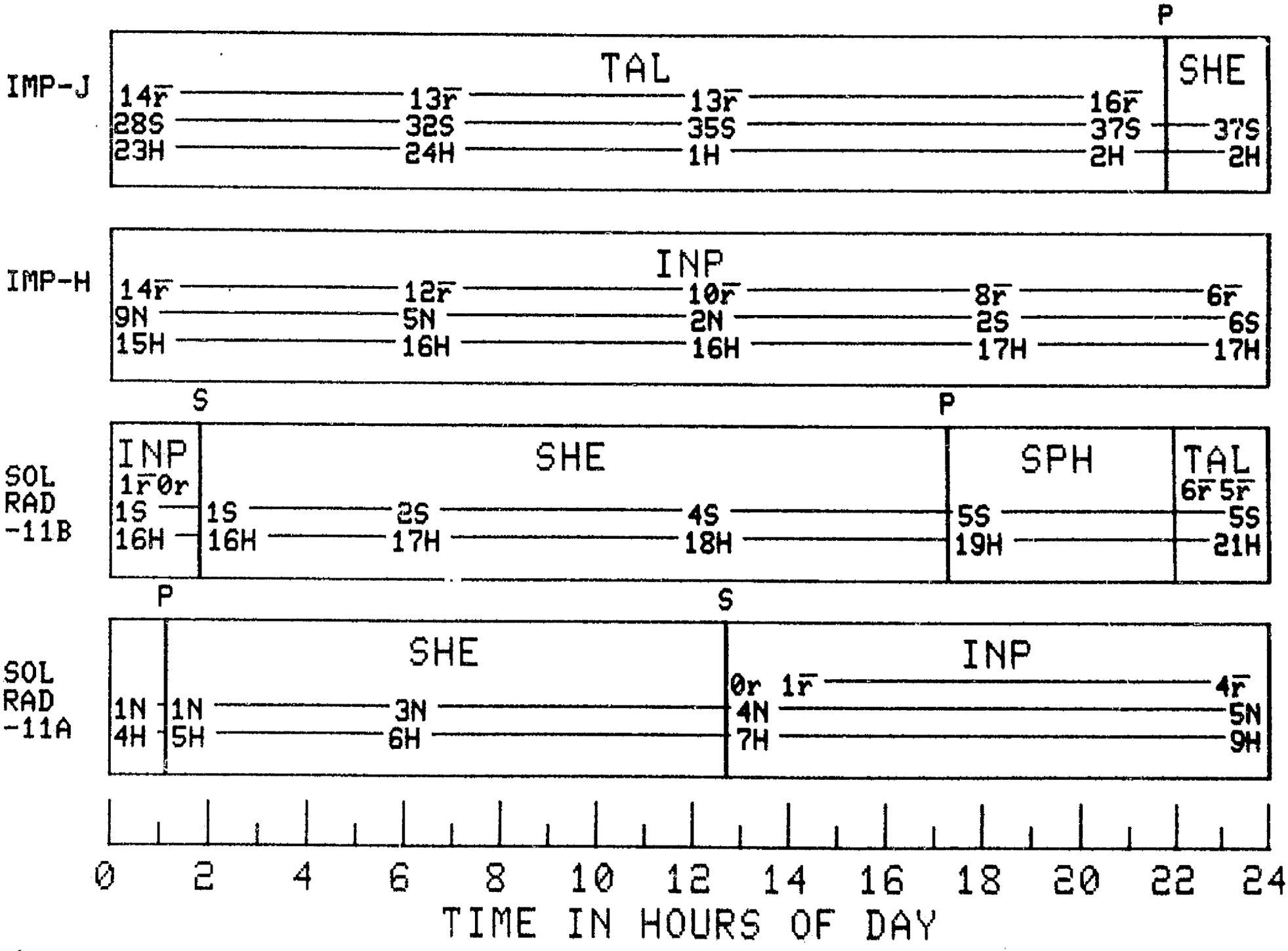
DAY 262 1977


VELA -6B
TAL
10r̄ 11r̄ 12r̄ 13r̄
27S 39S 49S 52S
22H 23H 0H 1H
SPH
52S 48S
2H 4H
P
VELA -6A
SHE
44N 31N
17H 18H
SPH
22N
19H
TAL
6r̄ 6r̄
1S 13S
20H 21H
P
VELA -5B
SHE
53N 45N 33N
15H 17H 18H
SPH
16N 4N
19H 20H
S
VELA -5A
SHE
6r
41S 29S
5H 6H
INP
0r 0r 0r 1r̄ 1r̄ 2r̄
8S 6N 19N
8H 8H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 262 1977

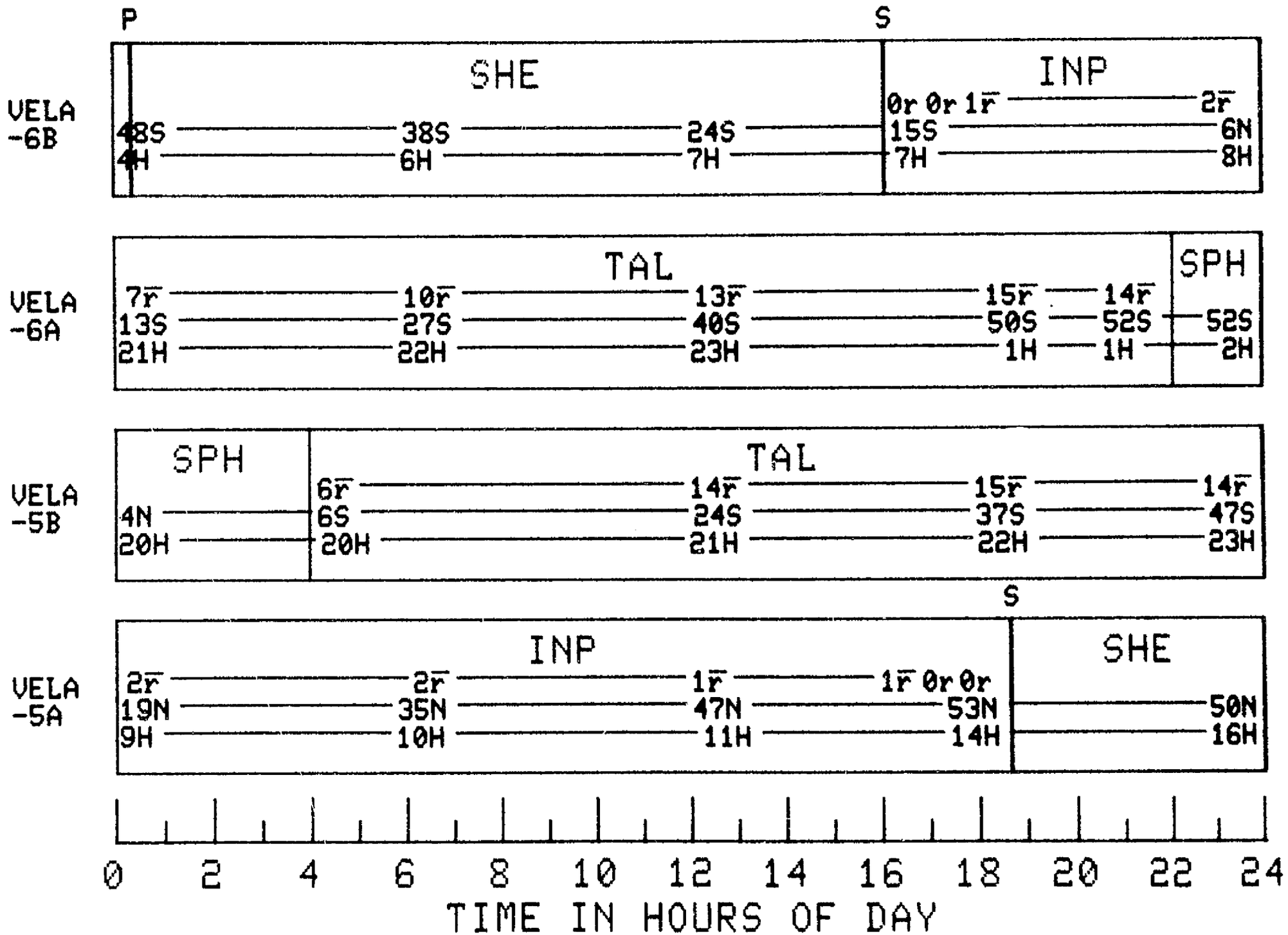

P
S
SPH
SHE
INP
PROG
NOZ-5
47N
11H
60N
11H
0r 1r̄
74N
11H
3r̄
79N
11H
4r̄
83N
12H
P
SPH
SHE
HAWK
EYE-1
38N
18H
40N
18H
34N
18H
33N
18H
41N
19H
52N
20H
63N
20H
69N
19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 263 1977

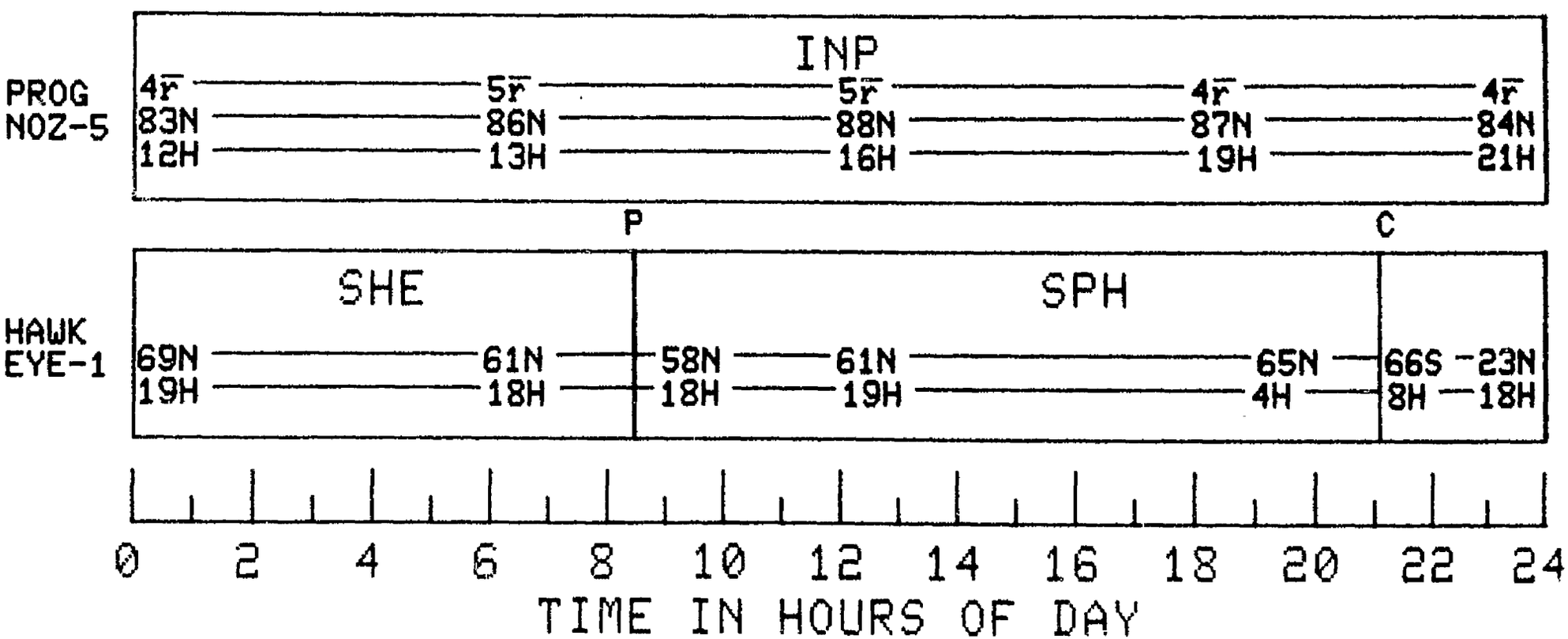

IMP-J
TAL
SHE
P
14r 13r 13r 16r
28S 32S 35S 37S 37S
23H 24H 1H 2H 2H
IMP-H
INP
14r 12r 10r 8r 6r
9N 5N 2N 2S 6S
15H 16H 16H 17H 17H
SOL RAD -11B
S
P
INP
SHE
SPH
TAL
1r 0r
6r 5r
1S 1S 2S 4S 5S 5S
16H 16H 17H 18H 19H 21H
SOL RAD -11A
P
S
SHE
INP
1N 1N 3N 0r 1r 4r
4H 5H 6H 4N 5N
7H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

C-4

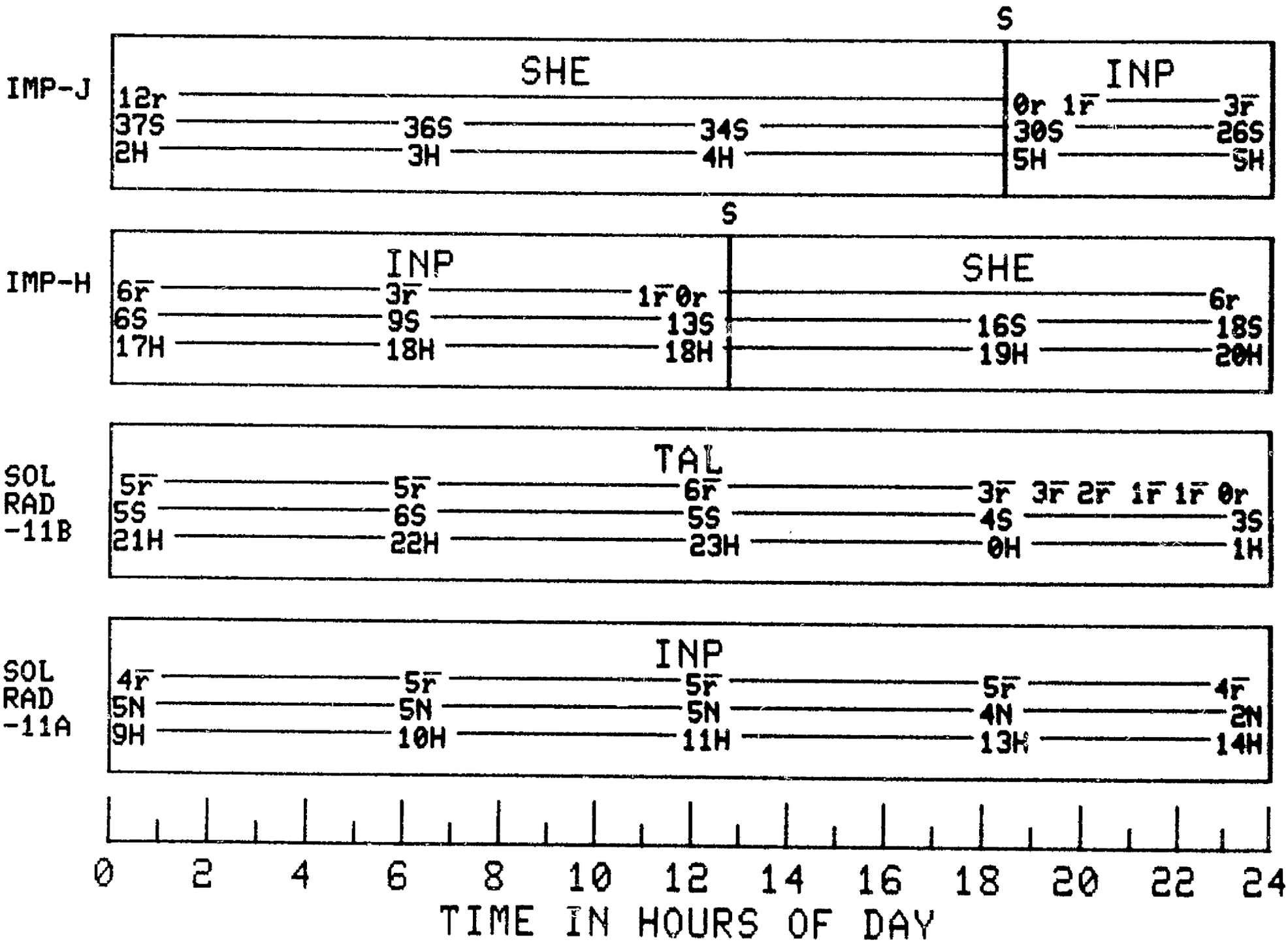
DAY 263 1977



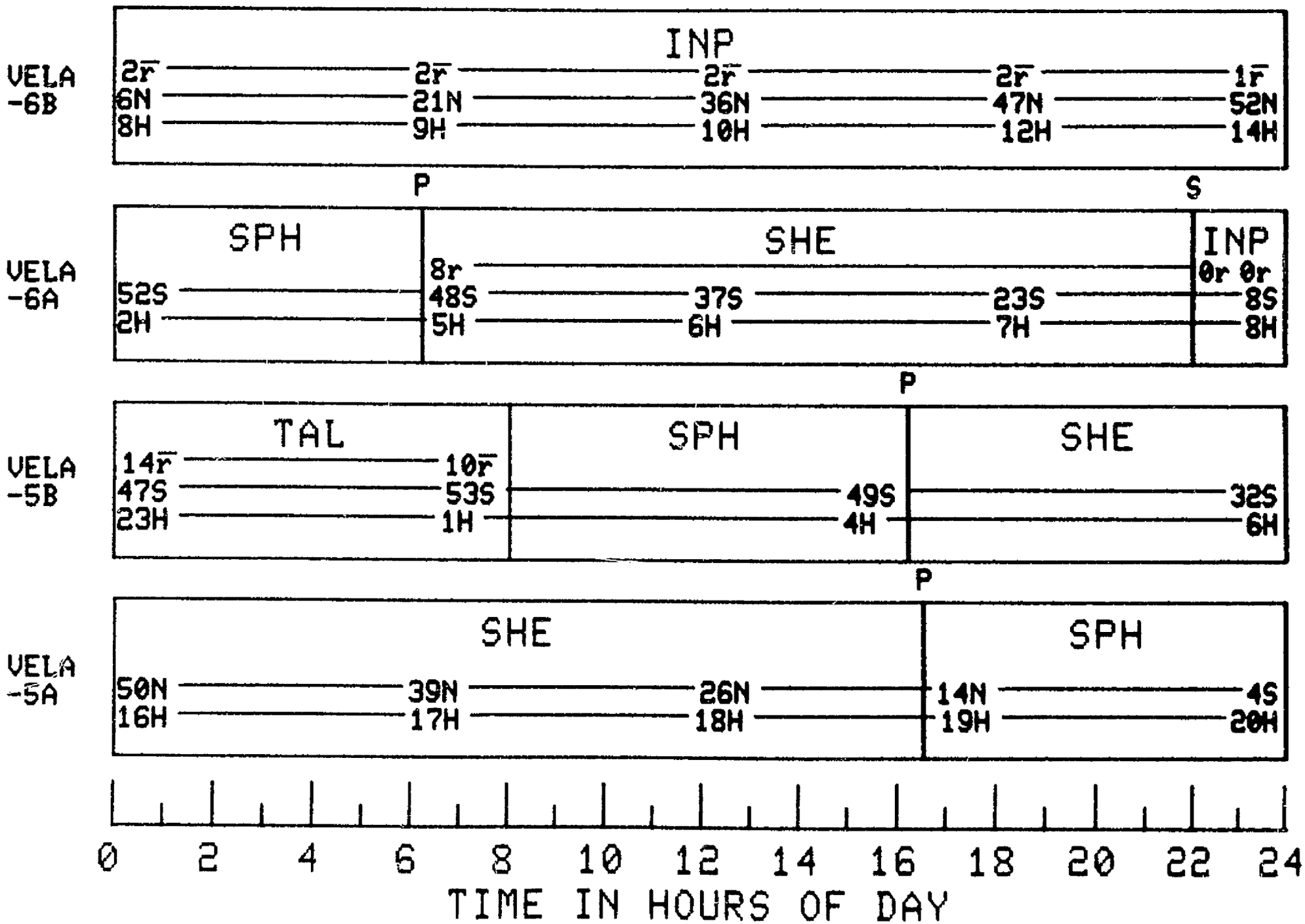
DAY 263 1977


INP
PROG
NOZ-5
4r̄
83N
12H
5r̄
86N
13H
5r̄
88N
16H
4r̄
87N
19H
4r̄
84N
21H
P
C
SHE
SPH
HAWK
EYE-1
69N
19H
61N
18H
58N
18H
61N
19H
65N
4H
66S
8H
23N
18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

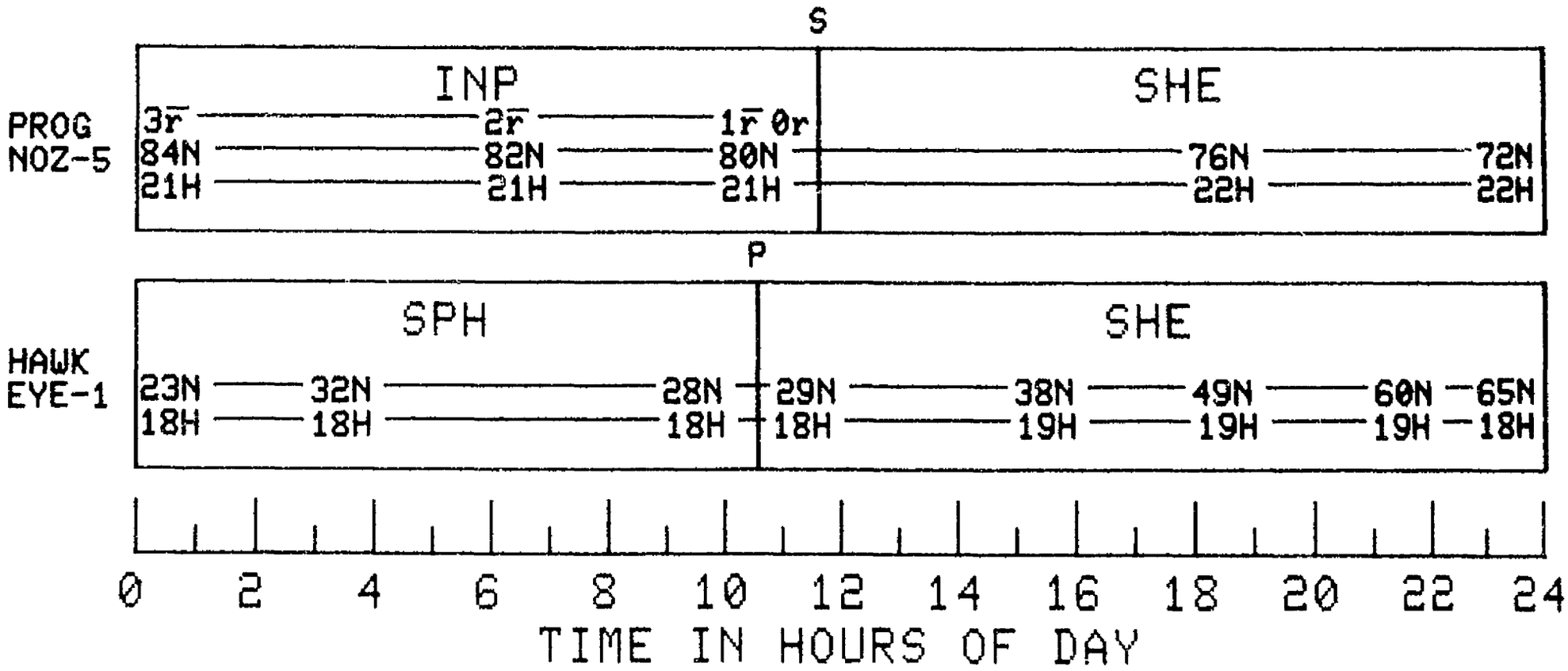
DAY 264 1977


IMP-J
SHE
INP
S
12r
37S
2H
36S
3H
34S
4H
0r 1r
30S
5H
3r
26S
5H
IMP-H
INP
SHE
S
6r
6S
17H
3r
9S
18H
1r 0r
13S
18H
6r
16S
19H
18S
20H
SOL RAD -11B
TAL
5r
5S
21H
5r
6S
22H
6r
5S
23H
3r 3r 2r 1r 1r 0r
4S
0H
3S
1H
SOL RAD -11A
INP
4r
5N
9H
5r
5N
10H
5r
5N
11H
5r
4N
13H
4r
2N
14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

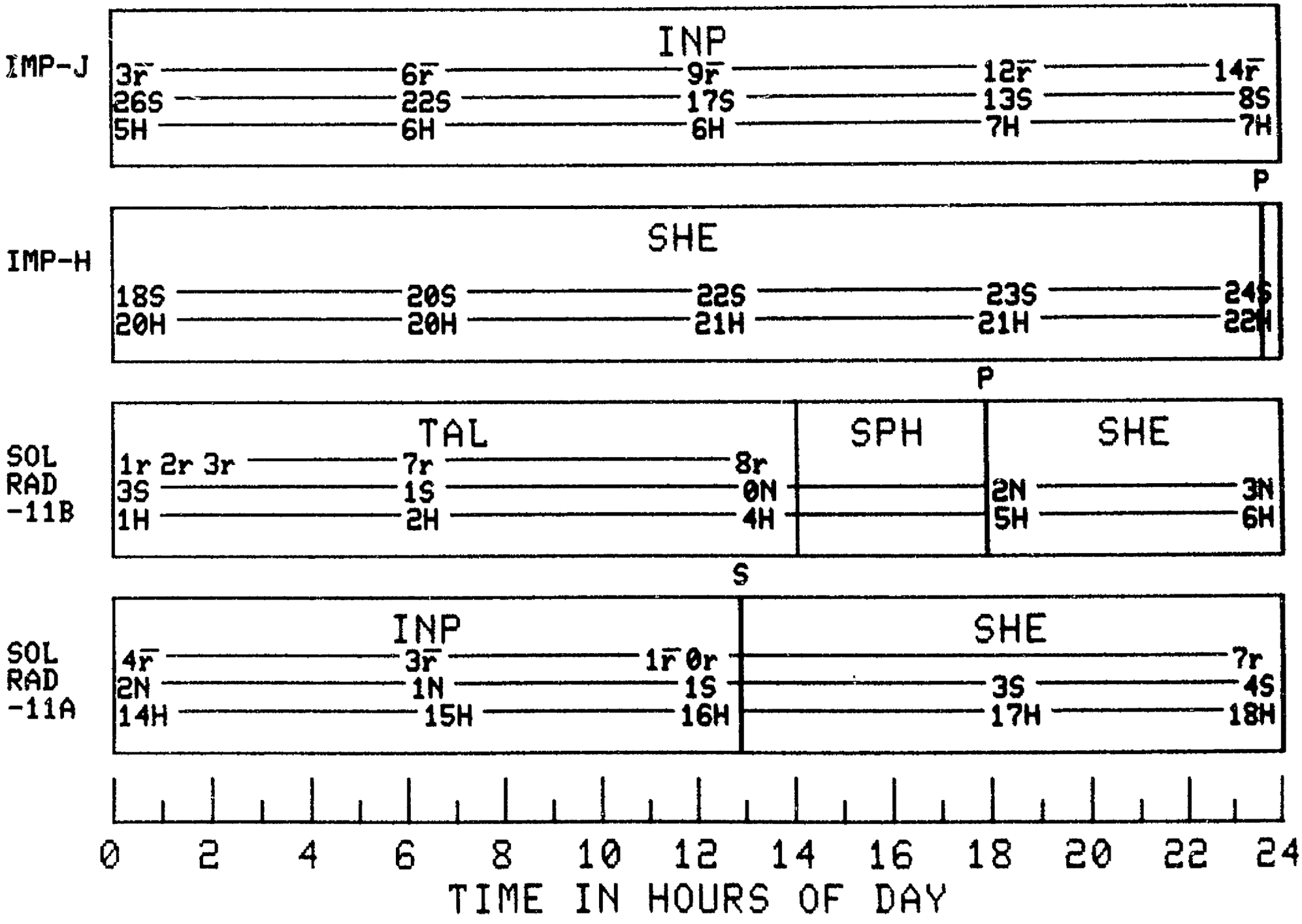
DAY 264 1977


VELA -6B
INP
2r̄ 2r̄ 2r̄ 2r̄ 1r̄
6N 21N 36N 47N 52N
8H 9H 10H 12H 14H
P
S
VELA -6A
SPH
52S 48S 37S 23S 8S
2H 5H 6H 7H 8H
SHE
8r
INP
0r 0r
P
VELA -5B
TAL
14r̄ 10r̄
47S 53S
23H 1H
SPH
49S
4H
SHE
32S
6H
P
VELA -5A
SHE
50N 39N 26N
16H 17H 18H
SPH
14N 4S
19H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

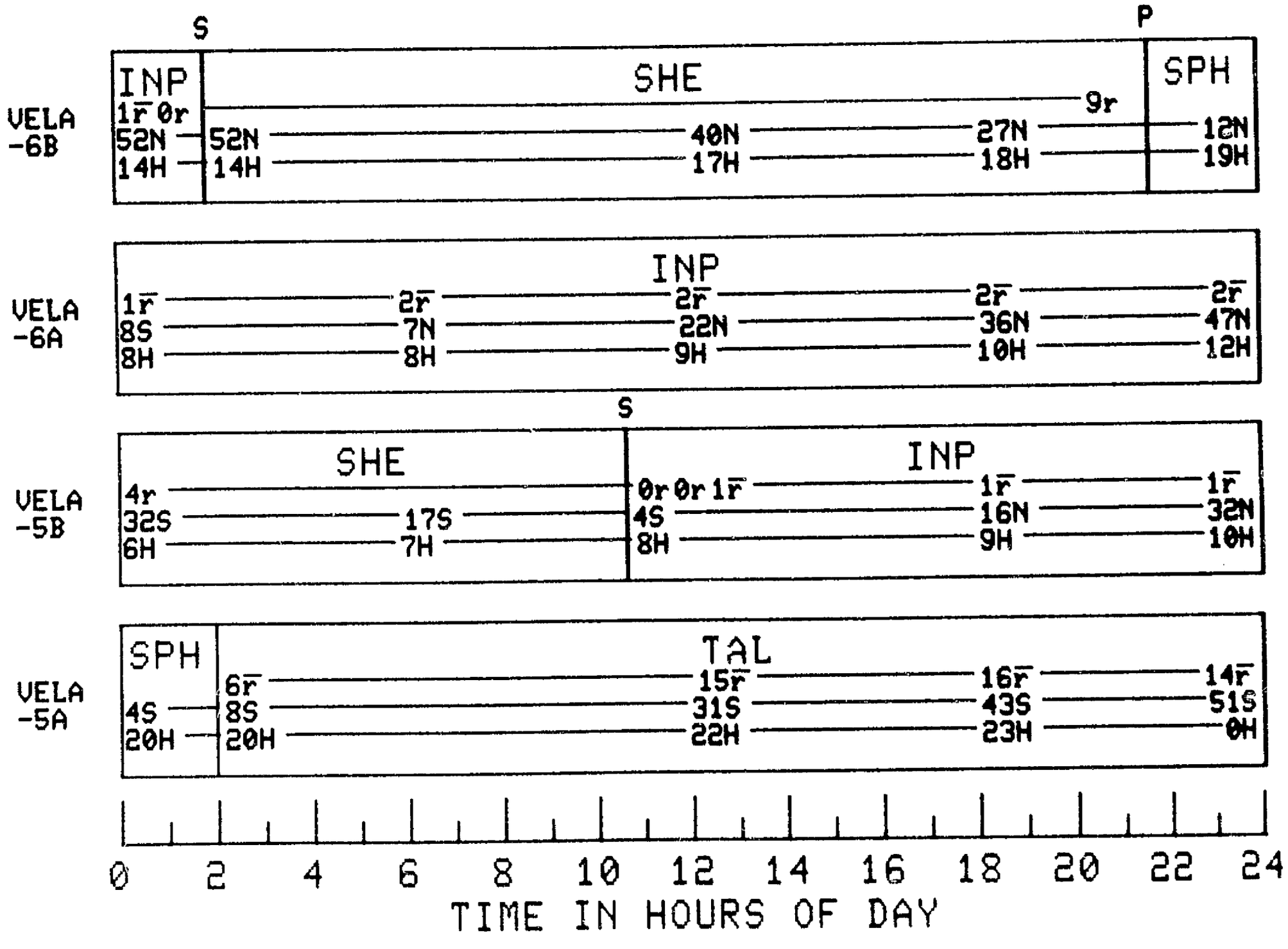
DAY 264 1977


S
INP
SHE
PROG
NOZ-5
3r 2r 1r 0r
84N 82N 80N 76N 72N
21H 21H 21H 22H 22H
P
SPH
SHE
HAWK
EYE-1
23N 32N 28N 29N 38N 49N 60N 65N
18H 18H 18H 18H 19H 19H 19H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

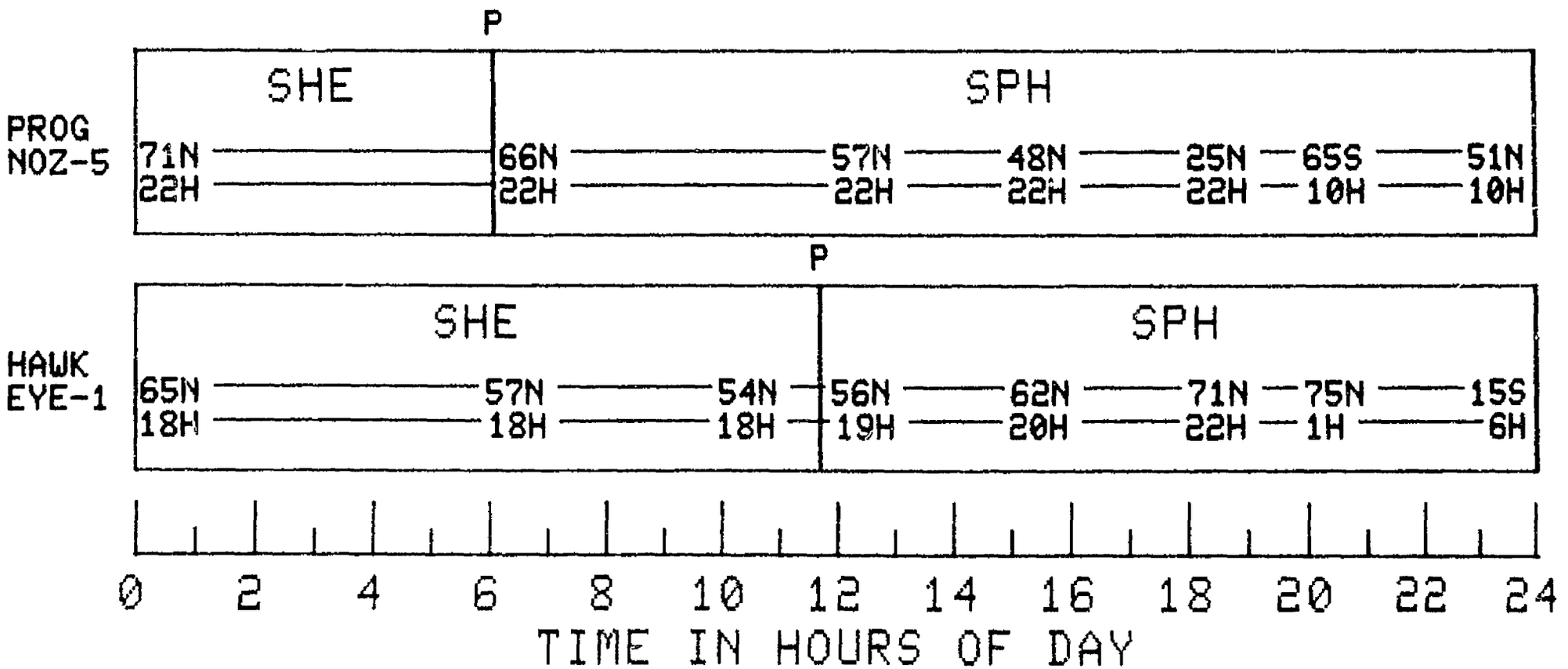
DAY 265 1977


IMP-J
INP
3r̄ 6r̄ 9r̄ 12r̄ 14r̄
26S 22S 17S 13S 8S
5H 6H 6H 7H 7H
P
IMP-H
SHE
18S 20S 22S 23S 24S
20H 20H 21H 21H 22H
P
SOL RAD -11B
TAL
SPH
SHE
1r 2r 3r 7r 8r
3S 1S 0N 2N 3N
1H 2H 4H 5H 6H
S
SOL RAD -11A
INP
SHE
4r̄ 3r̄ 1r̄ 0r 7r
2N 1N 1S 3S 4S
14H 15H 16H 17H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

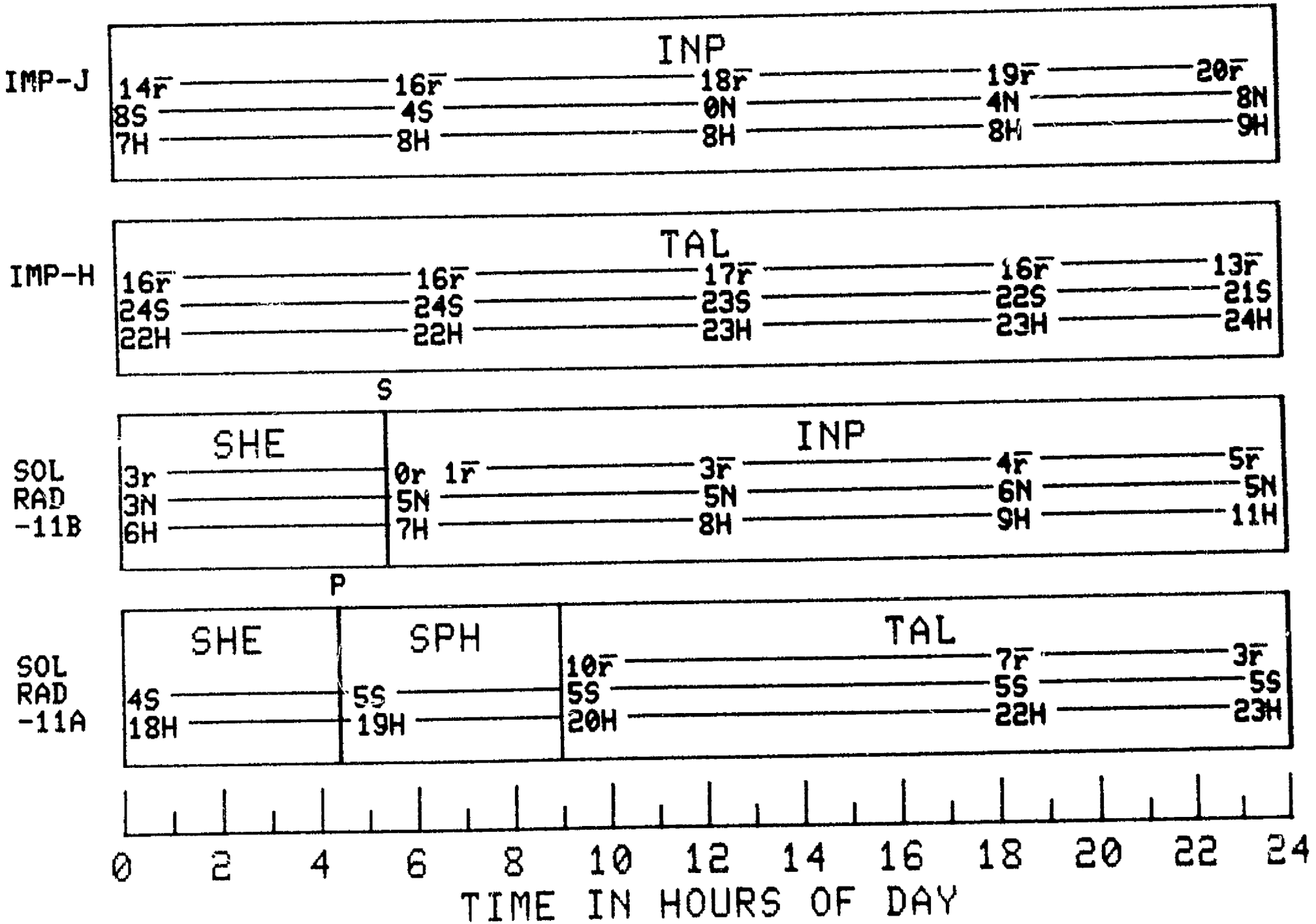
DAY 265 1977


S
P
VELA -6B
INP
SHE
SPH
1r̄ 0r
52N
14H
52N
14H
9r
40N
17H
27N
18H
12N
19H
VELA -6A
INP
1r̄
8S
8H
2r̄
7N
8H
2r̄
22N
9H
2r̄
36N
10H
2r̄
47N
12H
S
VELA -5B
SHE
INP
4r
32S
6H
17S
7H
0r 0r 1r̄
4S
8H
1r̄
16N
9H
1r̄
32N
10H
VELA -5A
SPH
TAL
4S
20H
6r̄
8S
20H
15r̄
31S
22H
16r̄
43S
23H
14r̄
51S
0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

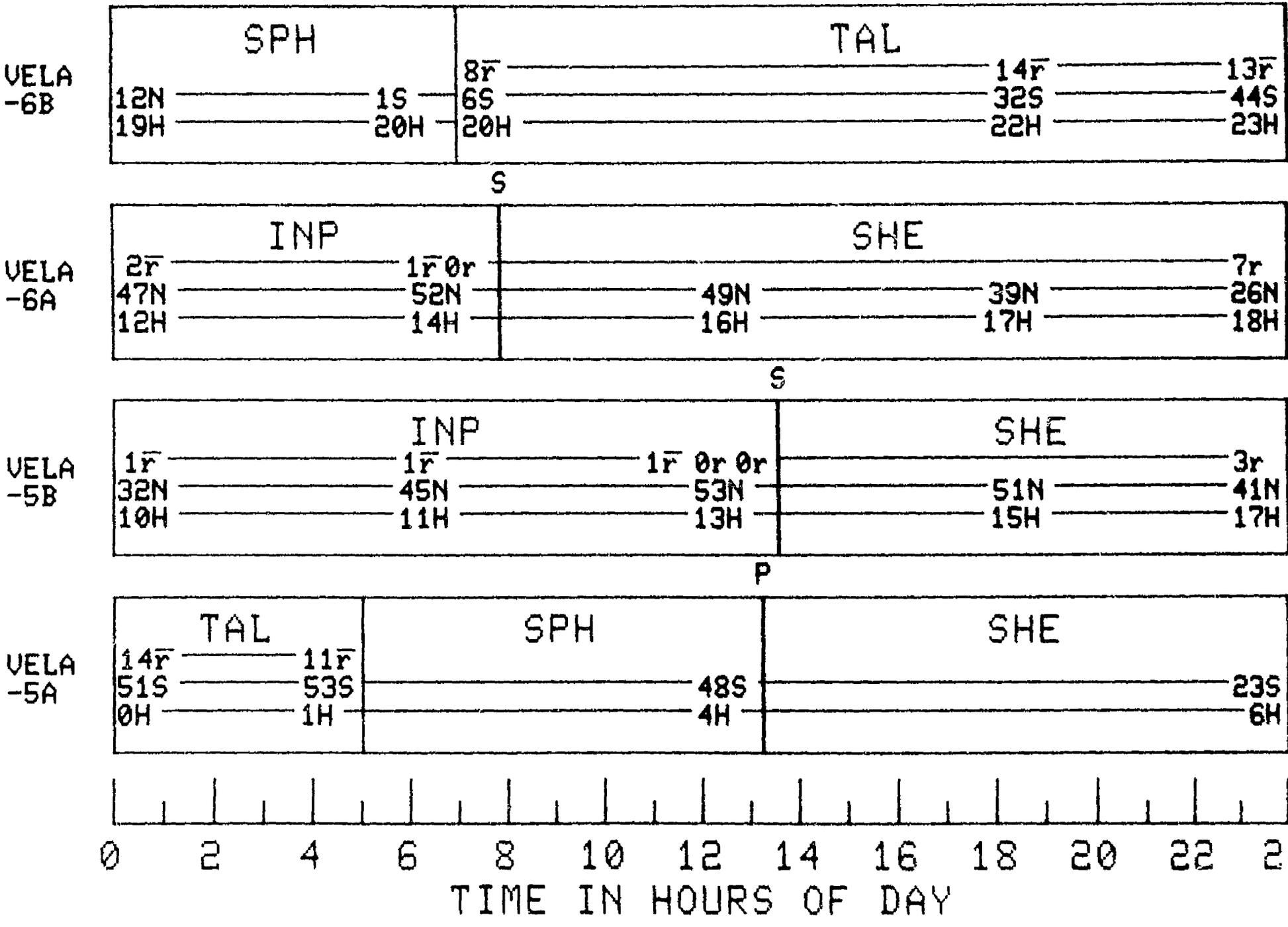
DAY 265 1977


P
SHE
SPH
PROG
NOZ-5
71N
22H
66N
22H
57N
22H
48N
22H
25N
22H
65S
10H
51N
10H
P
SHE
SPH
HAWK
EYE-1
65N
18H
57N
18H
54N
18H
56N
19H
62N
20H
71N
22H
75N
1H
15S
6H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

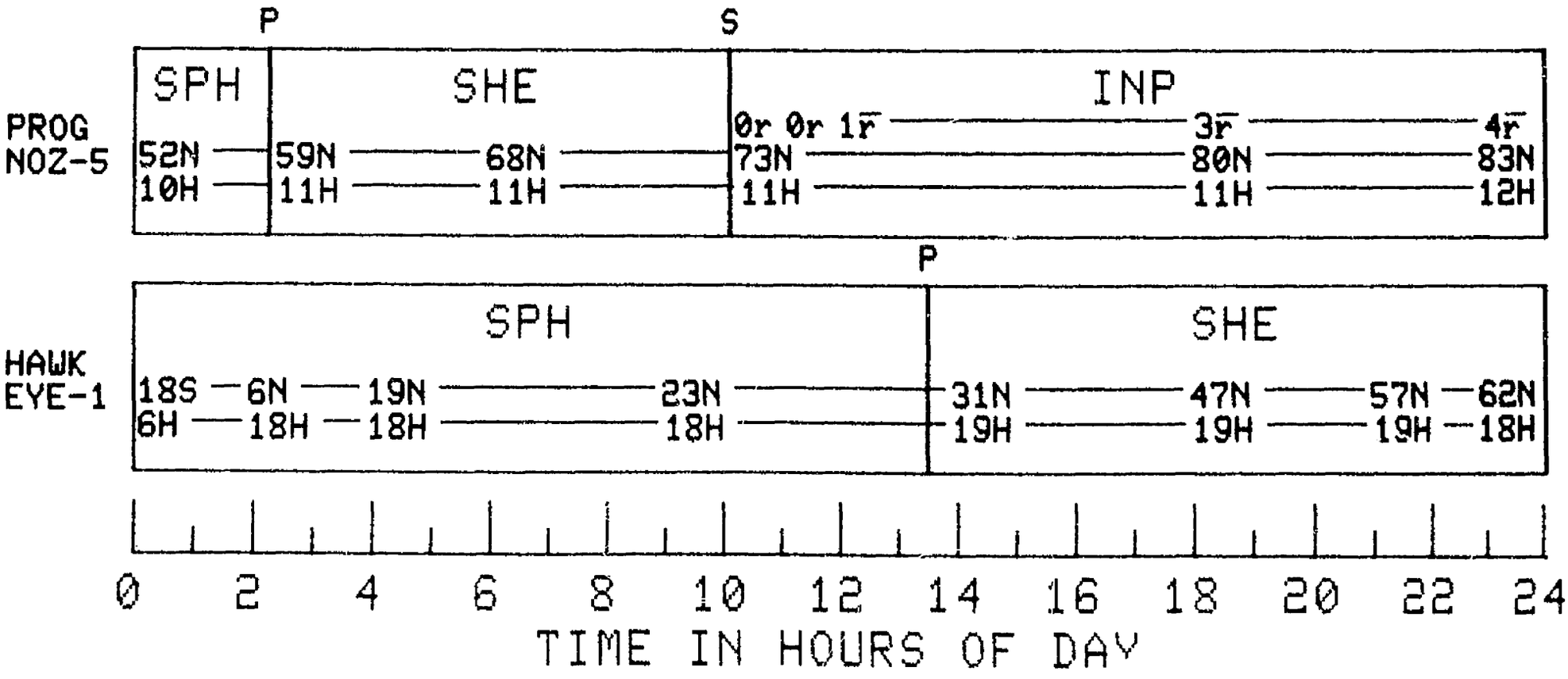
DAY 266 1977


IMP-J
INP
14r̄ 16r̄ 18r̄ 19r̄ 20r̄
8S 4S 0N 4N 8N
7H 8H 8H 8H 9H
IMP-H
TAL
16r̄ 16r̄ 17r̄ 16r̄ 13r̄
24S 24S 23S 22S 21S
22H 22H 23H 23H 24H
S
SOL RAD -11B
SHE
INP
3r 0r 1r̄ 3r̄ 4r̄ 5r̄
3N 5N 5N 6N 5N
6H 7H 8H 9H 11H
P
SOL RAD -11A
SHE
SPH
TAL
4S 5S 10r̄ 7r̄ 3r̄
18H 19H 5S 5S 5S
20H 22H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

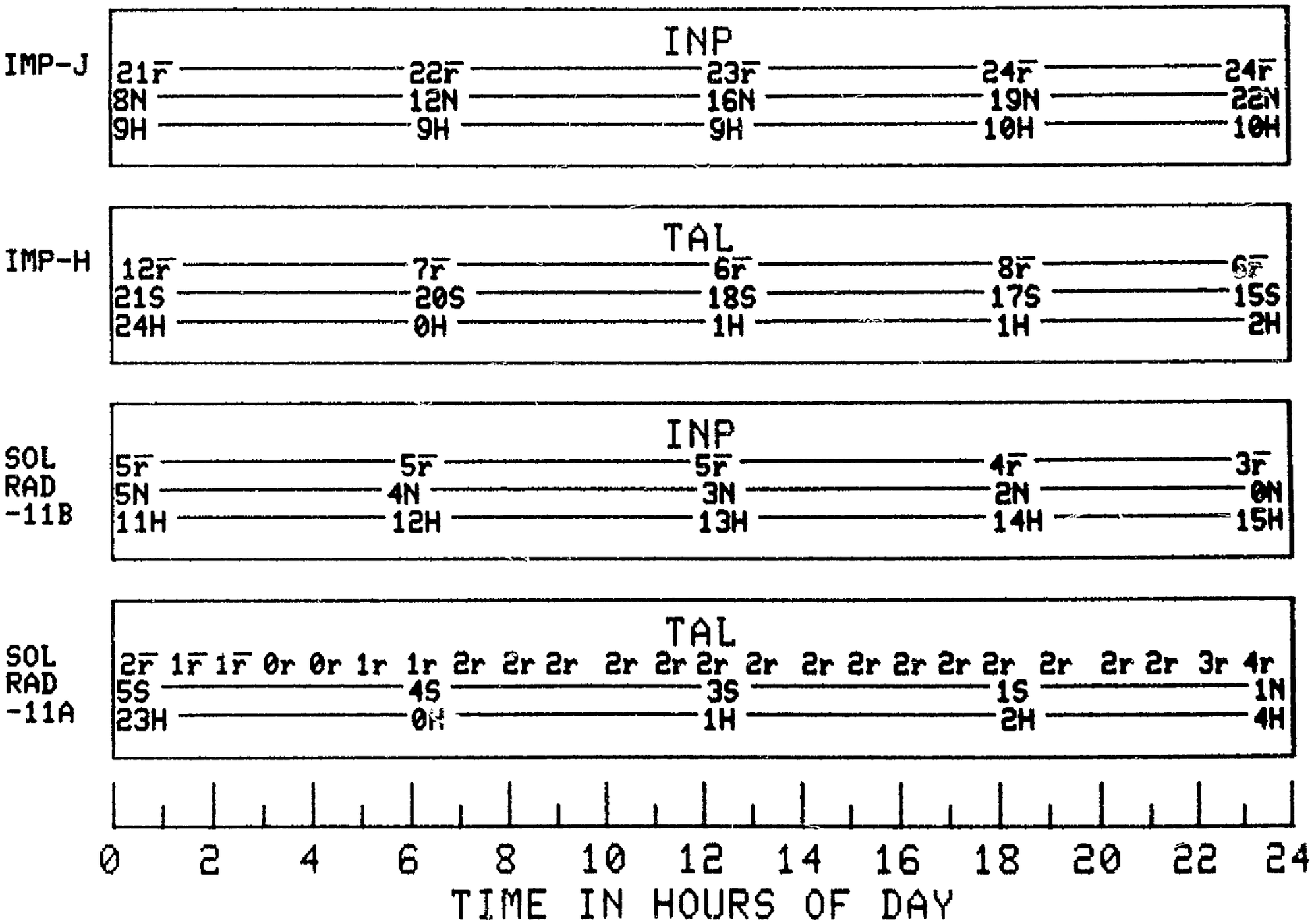
DAY 266 1977

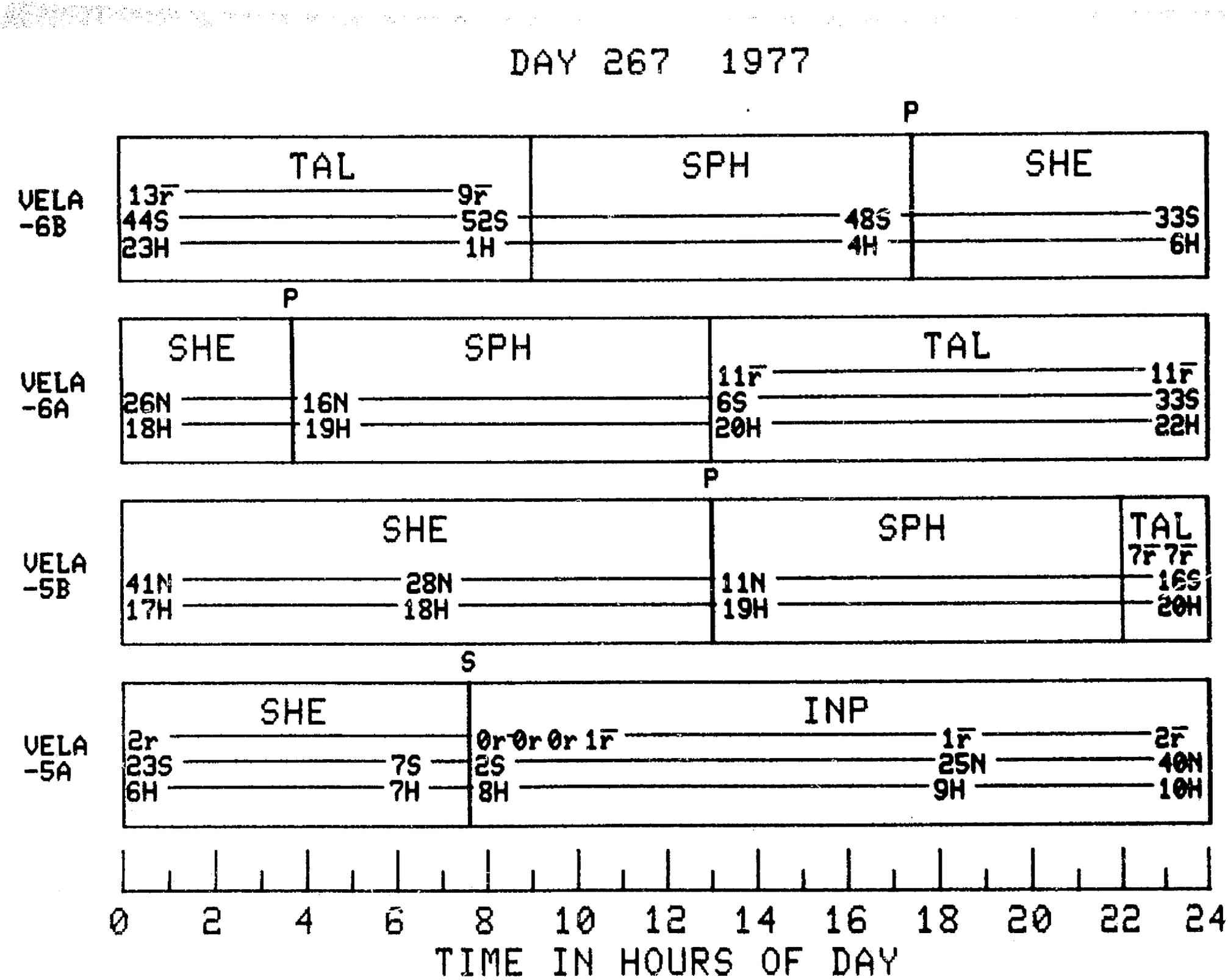

VELA -6B
SPH
12N 1S
19H 20H
TAL
8r 14r 13r
6S 32S 44S
20H 22H 23H
S
VELA -6A
INP
2r 1r 0r
47N 52N
12H 14H
SHE
7r
49N 39N 26N
16H 17H 18H
S
VELA -5B
INP
1r 1r 1r 0r 0r
32N 45N 53N
10H 11H 13H
SHE
3r
51N 41N
15H 17H
P
VELA -5A
TAL
14r 11r
51S 53S
0H 1H
SPH
48S
4H
SHE
23S
6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 266 1977

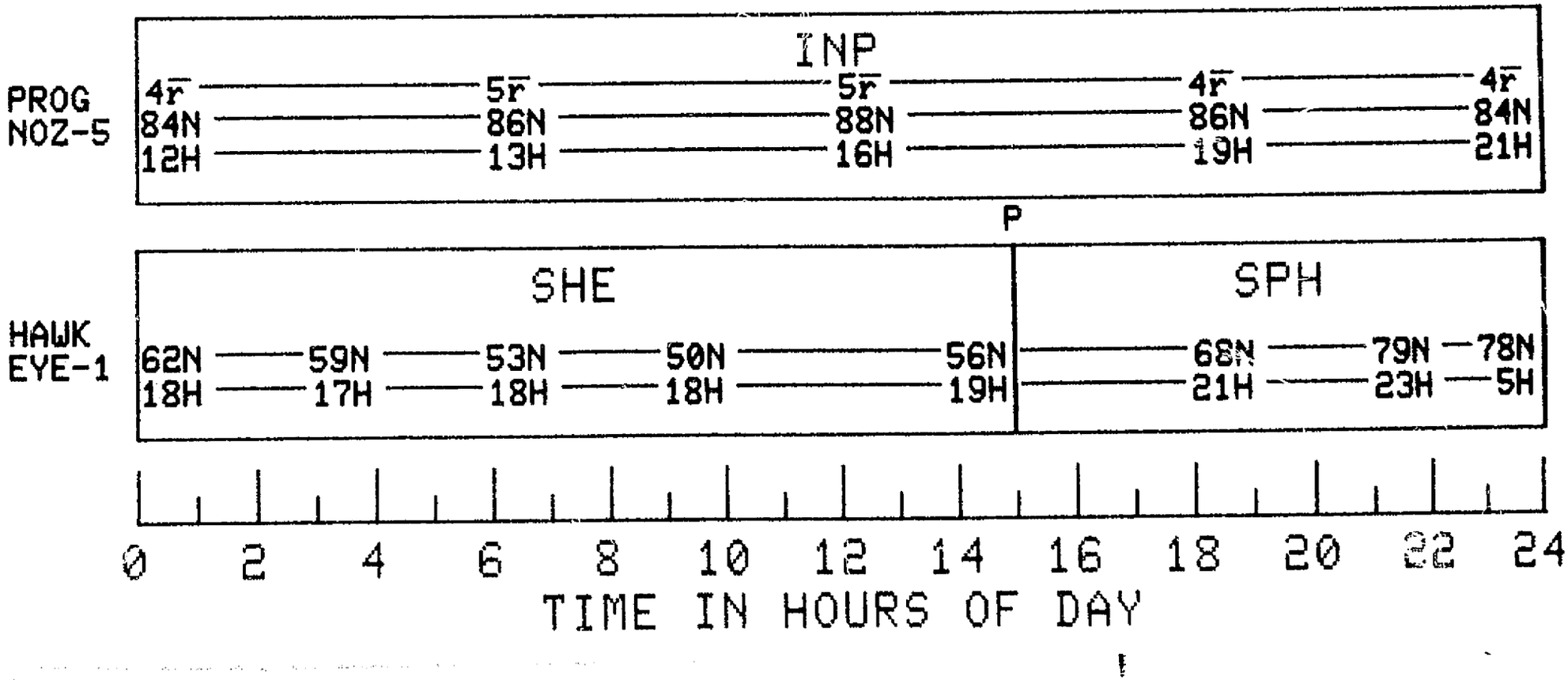

P
S
SPH
SHE
INP
PROG
NOZ-5
52N
10H
59N
11H
68N
11H
0r 0r 1r
73N
11H
3r
80N
11H
4r
83N
12H
P
SPH
SHE
HAWK
EYE-1
18S
6H
6N
18H
19N
18H
23N
18H
31N
19H
47N
19H
57N
19H
62N
18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 267 1977

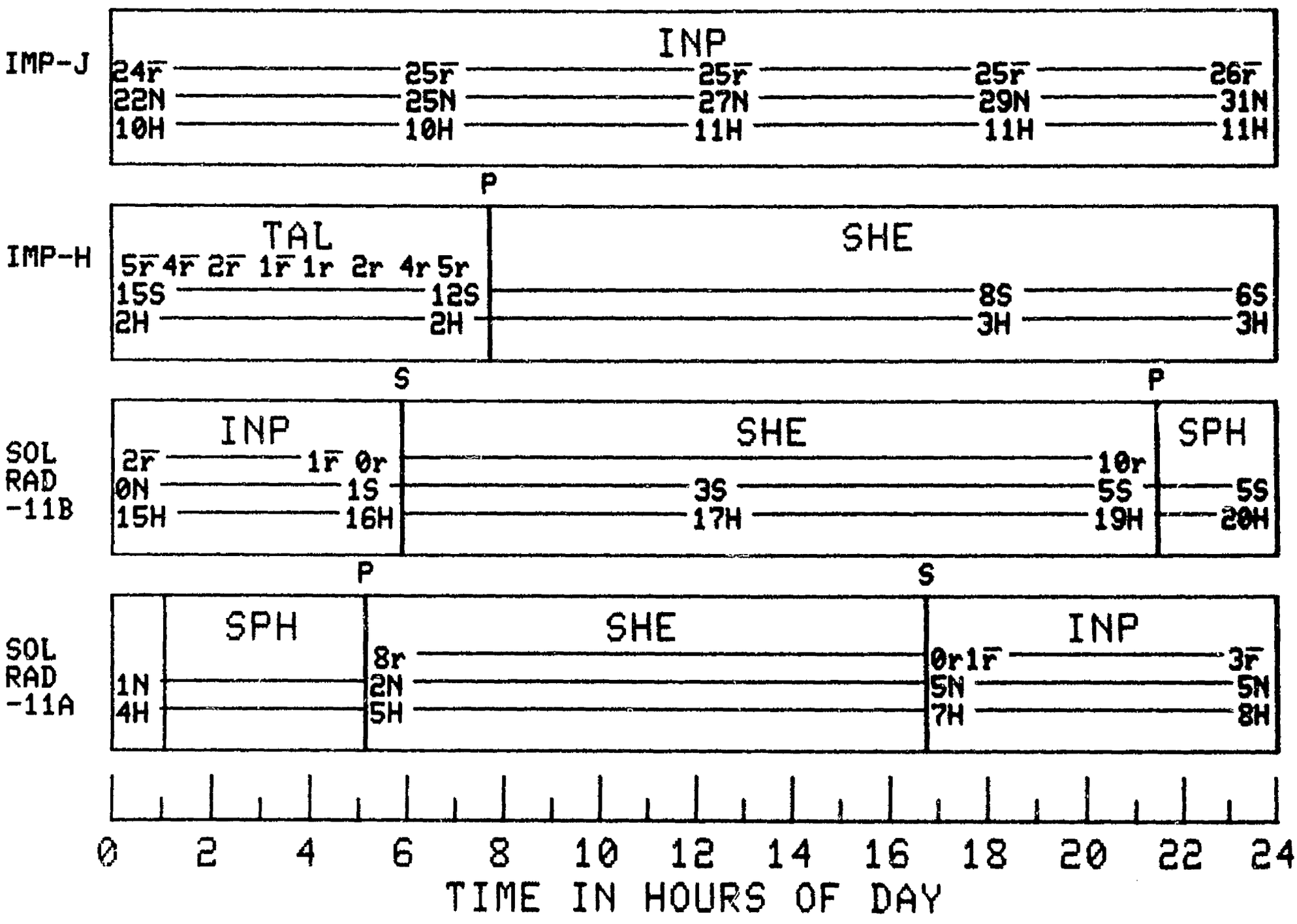

IMP-J
INP
21r 22r 23r 24r 24r
8N 12N 16N 19N 22N
9H 9H 9H 10H 10H
IMP-H
TAL
12r 7r 6r 8r 6r
21S 20S 18S 17S 15S
24H 0H 1H 1H 2H
SOL RAD -11B
INP
5r 5r 5r 4r 3r
5N 4N 3N 2N 0N
11H 12H 13H 14H 15H
SOL RAD -11A
TAL
2r 1r 1r 0r 0r 1r 1r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 3r 4r
5S 4S 3S 1S 1N
23H 0H 1H 2H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

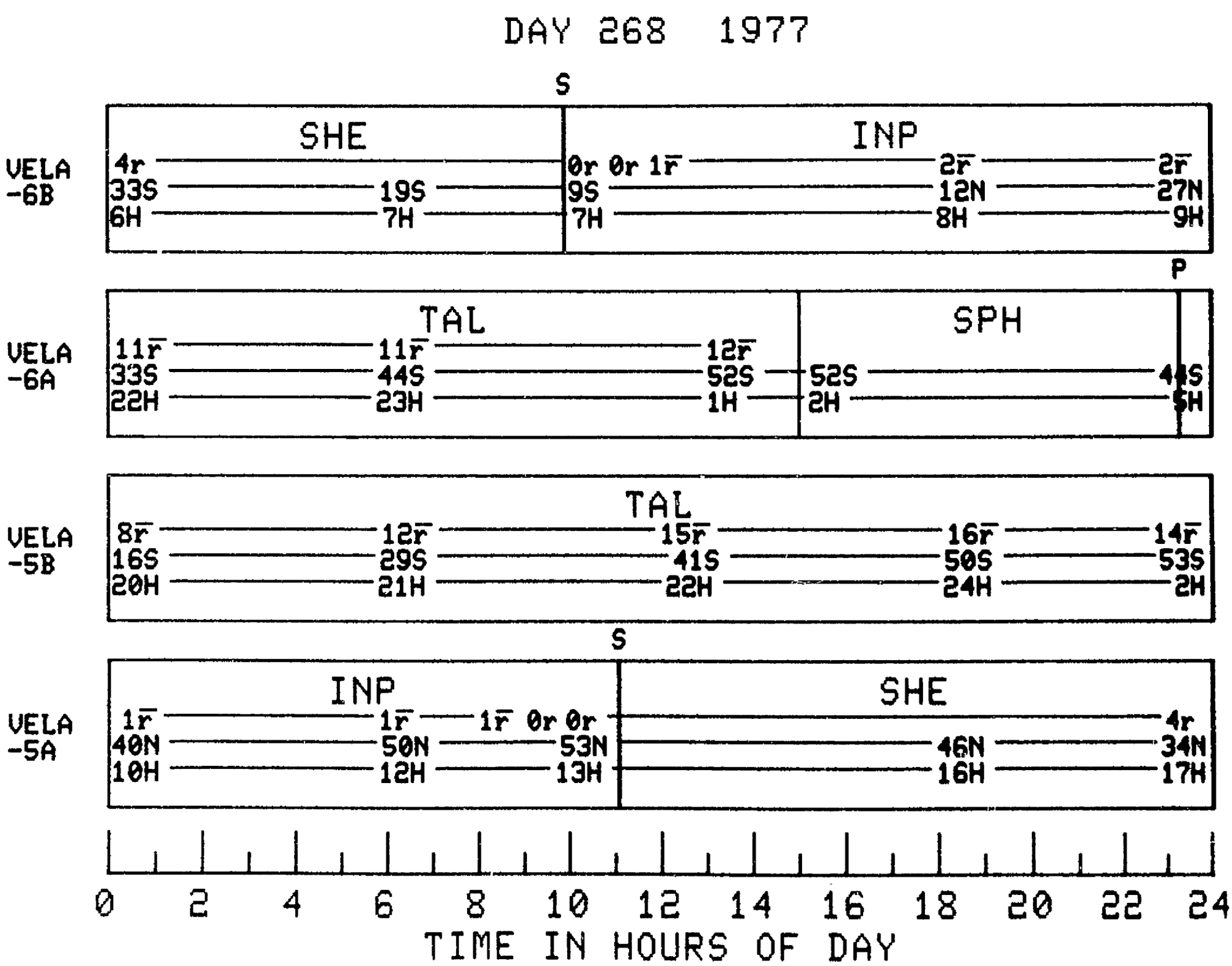

DAY 267 1977
VELA -6B
TAL
SPH
SHE
P
13r 9r
44S 52S 48S 33S
23H 1H 4H 6H
VELA -6A
SHE
SPH
TAL
P
26N 16N 11r 11r
18H 19H 6S 33S
20H 22H
VELA -5B
SHE
SPH
TAL
P
41N 28N 11N 7r 7r 16S
17H 18H 19H 20H
VELA -5A
SHE
INP
S
2r 0r 0r 0r 1r 1r 2r
23S 7S 2S 25N 40N
6H 7H 8H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 267 1977

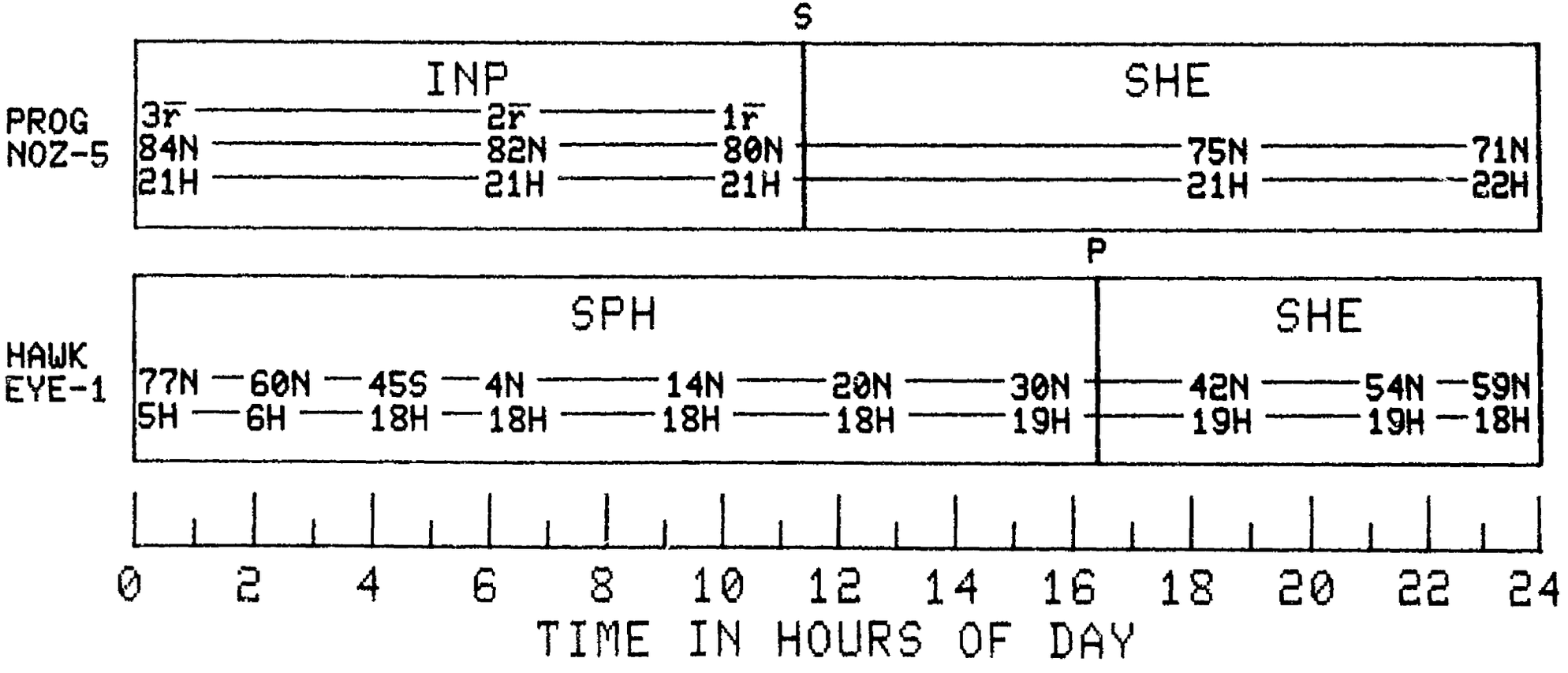

INP
PROG
NOZ-5
4r̄
84N
12H
5r̄
86N
13H
5r̄
88N
16H
4r̄
86N
19H
4r̄
84N
21H
P
SHE
SPH
HAWK
EYE-1
62N
18H
59N
17H
53N
18H
50N
18H
56N
19H
68N
21H
79N
23H
78N
5H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 268 1977

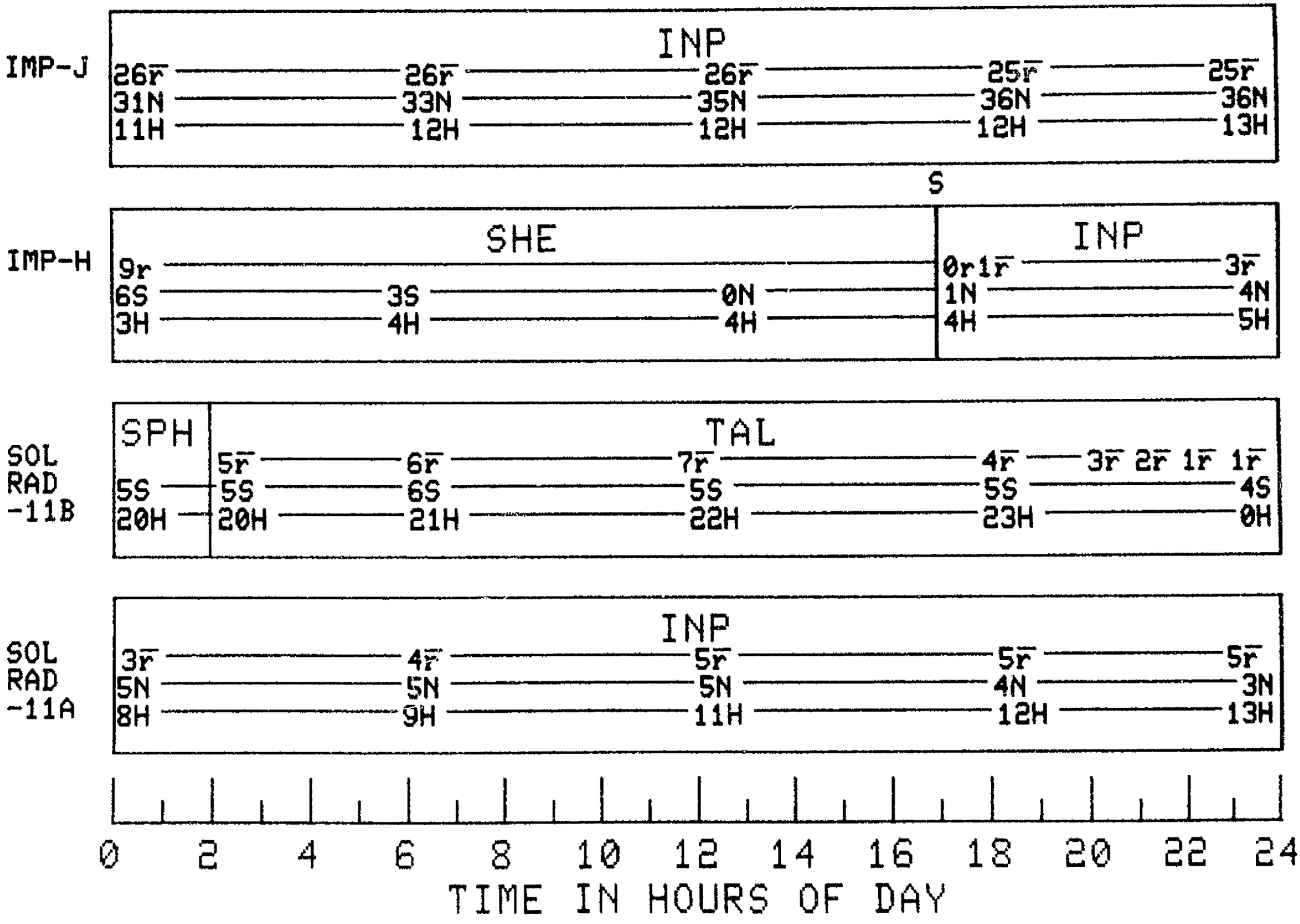

IMP-J
INP
24r 25r 25r 25r 26r
22N 25N 27N 29N 31N
10H 10H 11H 11H 11H
P
IMP-H
TAL
5r 4r 2r 1r 1r 2r 4r 5r
15S 12S
2H 2H
SHE
8S 6S
3H 3H
S
P
SOL RAD -11B
INP
2r 1r 0r
0N 1S
15H 16H
SHE
10r
3S 5S
17H 19H
SPH
5S
20H
P
S
SOL RAD -11A
SPH
1N
4H
SHE
8r
2N
5H
INP
0r 1r 3r
5N 5N
7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 268 1977
S
SHE
INP
VELA -6B
4r 0r 0r 1r 2r 2r
33S 19S 9S 12N 27N
6H 7H 7H 8H 9H
P
TAL
SPH
VELA -6A
11r 11r 12r
33S 44S 52S 52S 4?S
22H 23H 1H 2H ?H
TAL
VELA -5B
8r 12r 15r 16r 14r
16S 29S 41S 50S 53S
20H 21H 22H 24H 2H
S
INP
SHE
VELA -5A
1r 1r 1r 0r 0r 4r
40N 50N 53N 46N 34N
10H 12H 13H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

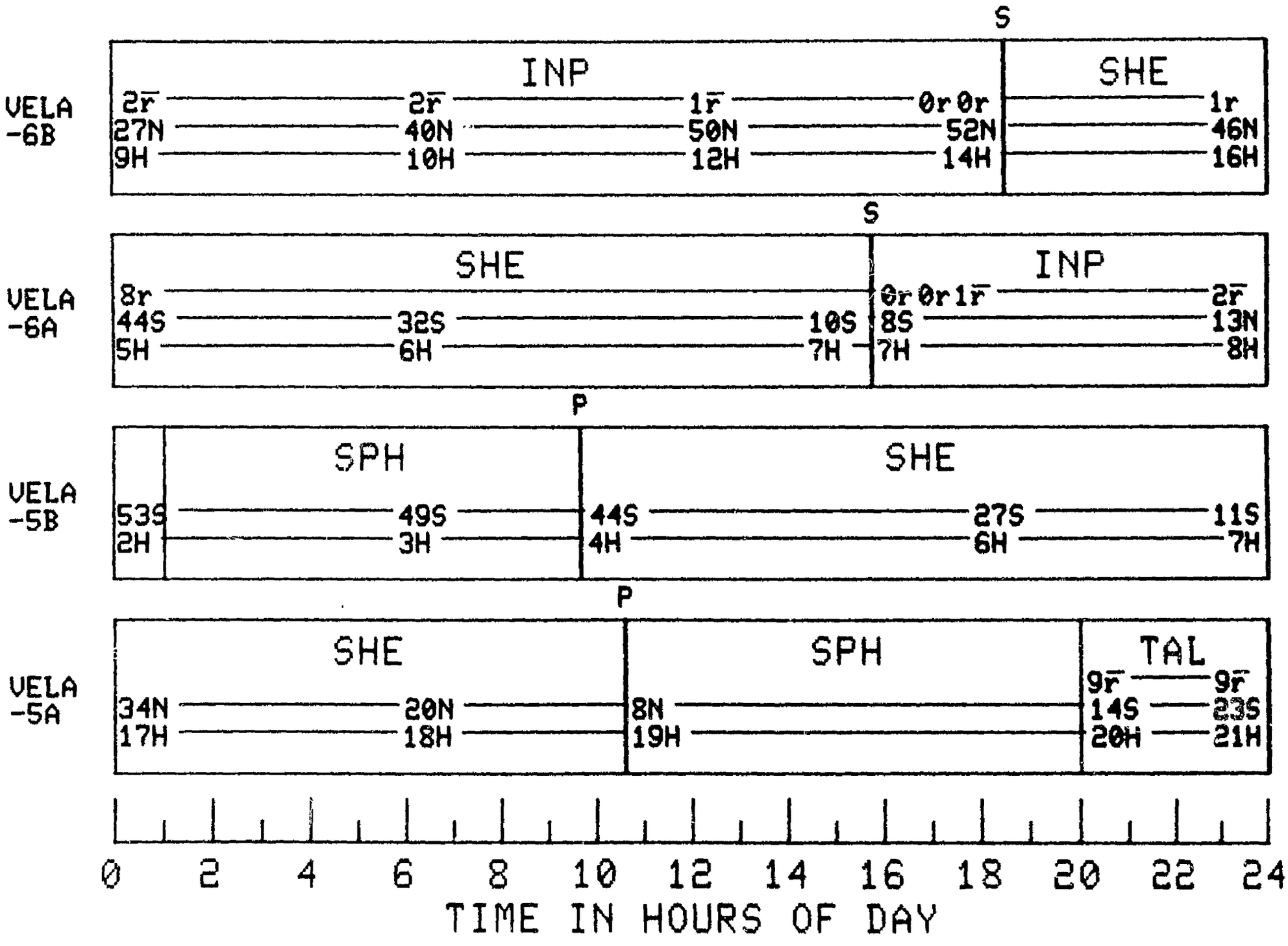
DAY 268 1977


S
INP
SHE
PROG
NOZ-5
3r 2r 1r
84N 82N 80N 75N 71N
21H 21H 21H 21H 22H
P
SPH
SHE
HAWK
EYE-1
77N 60N 45S 4N 14N 20N 30N 42N 54N 59N
5H 6H 18H 18H 18H 18H 19H 19H 19H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

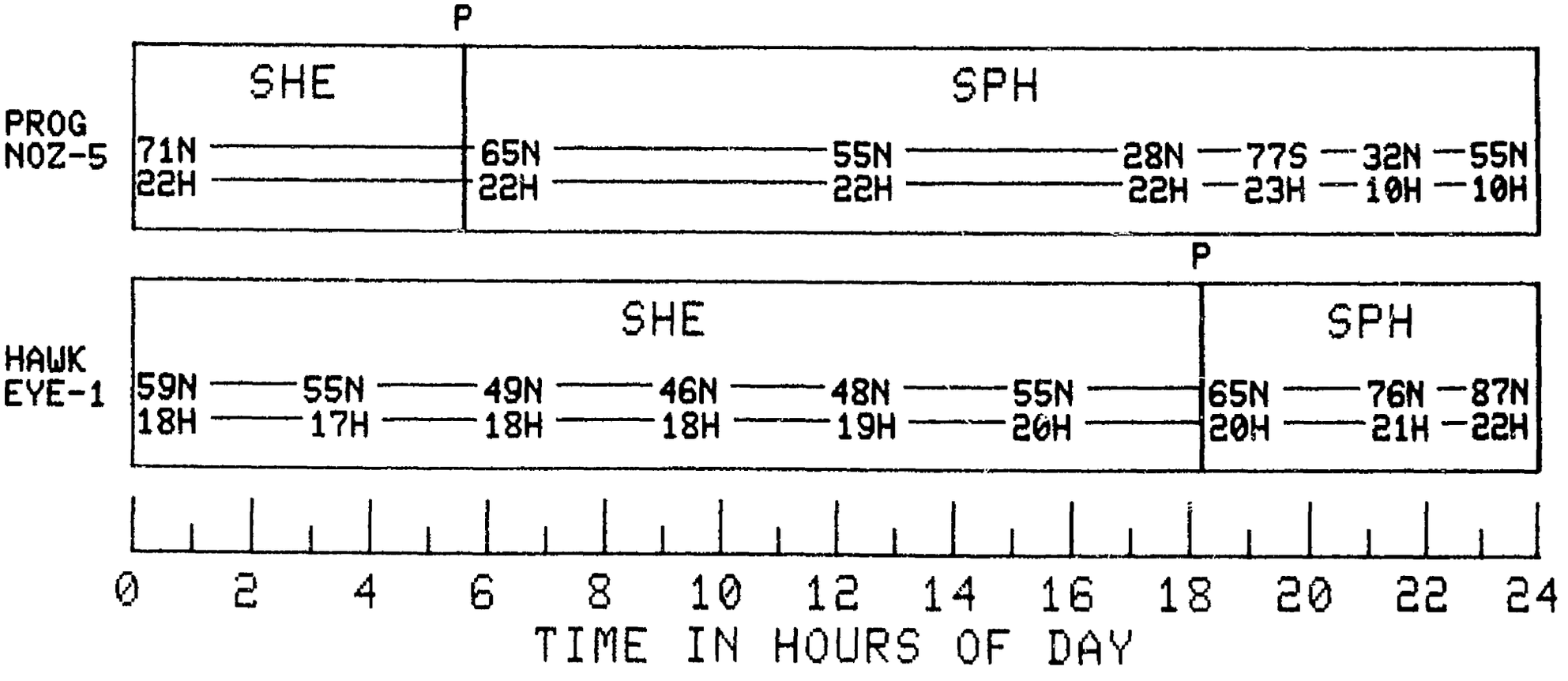
DAY 269 1977


IMP-J
INP
26r 26r 26r 25r 25r
31N 33N 35N 36N 36N
11H 12H 12H 12H 13H
S
IMP-H
SHE
INP
9r 0r 1r 3r
6S 3S 0N 1N 4N
3H 4H 4H 4H 5H
SOL RAD -11B
SPH
TAL
5r 6r 7r 4r 3r 2r 1r 1r
5S 5S 6S 5S 5S 4S
20H 20H 21H 22H 23H 0H
SOL RAD -11A
INP
3r 4r 5r 5r 5r
5N 5N 5N 4N 3N
8H 9H 11H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

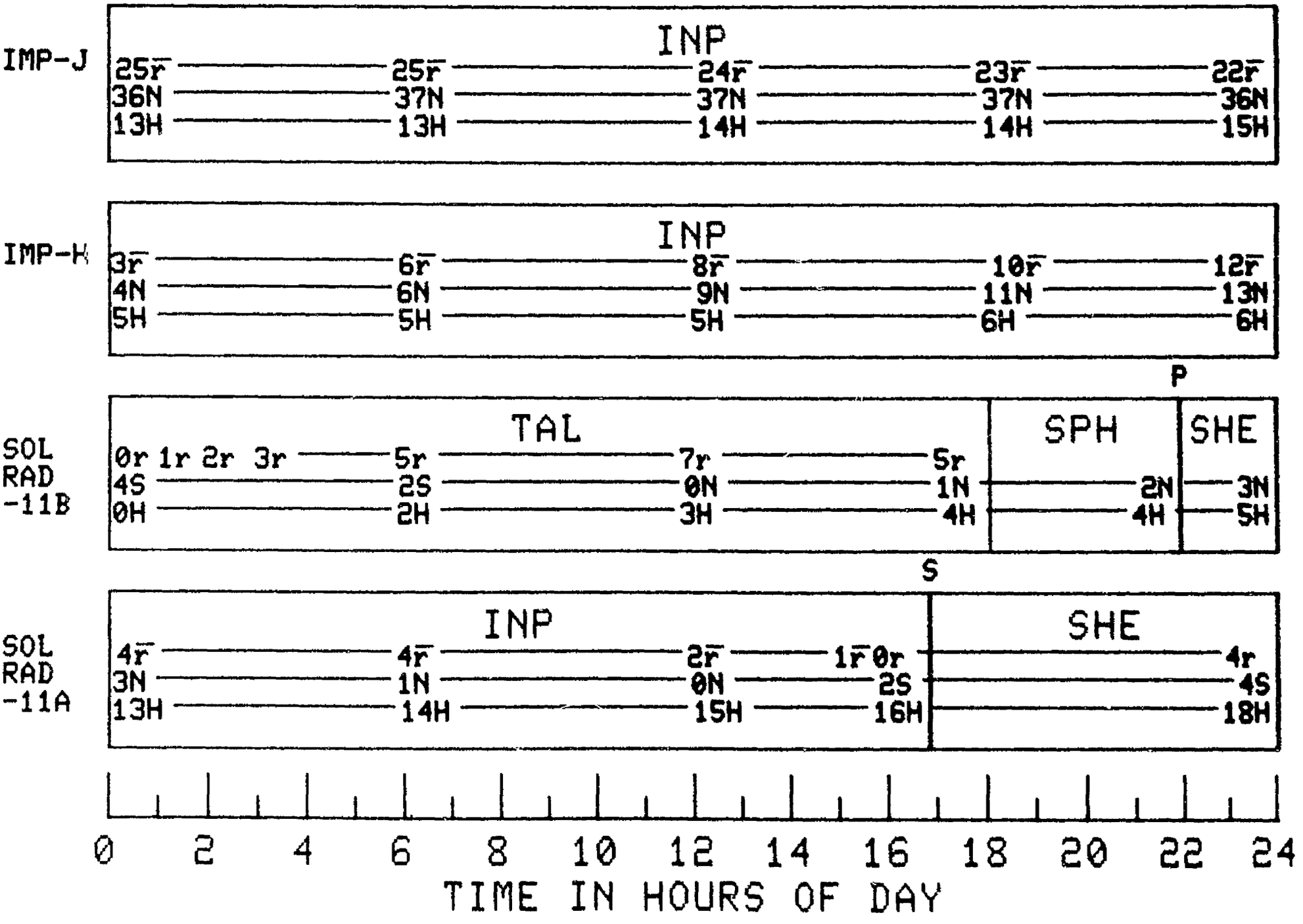
DAY 269 1977

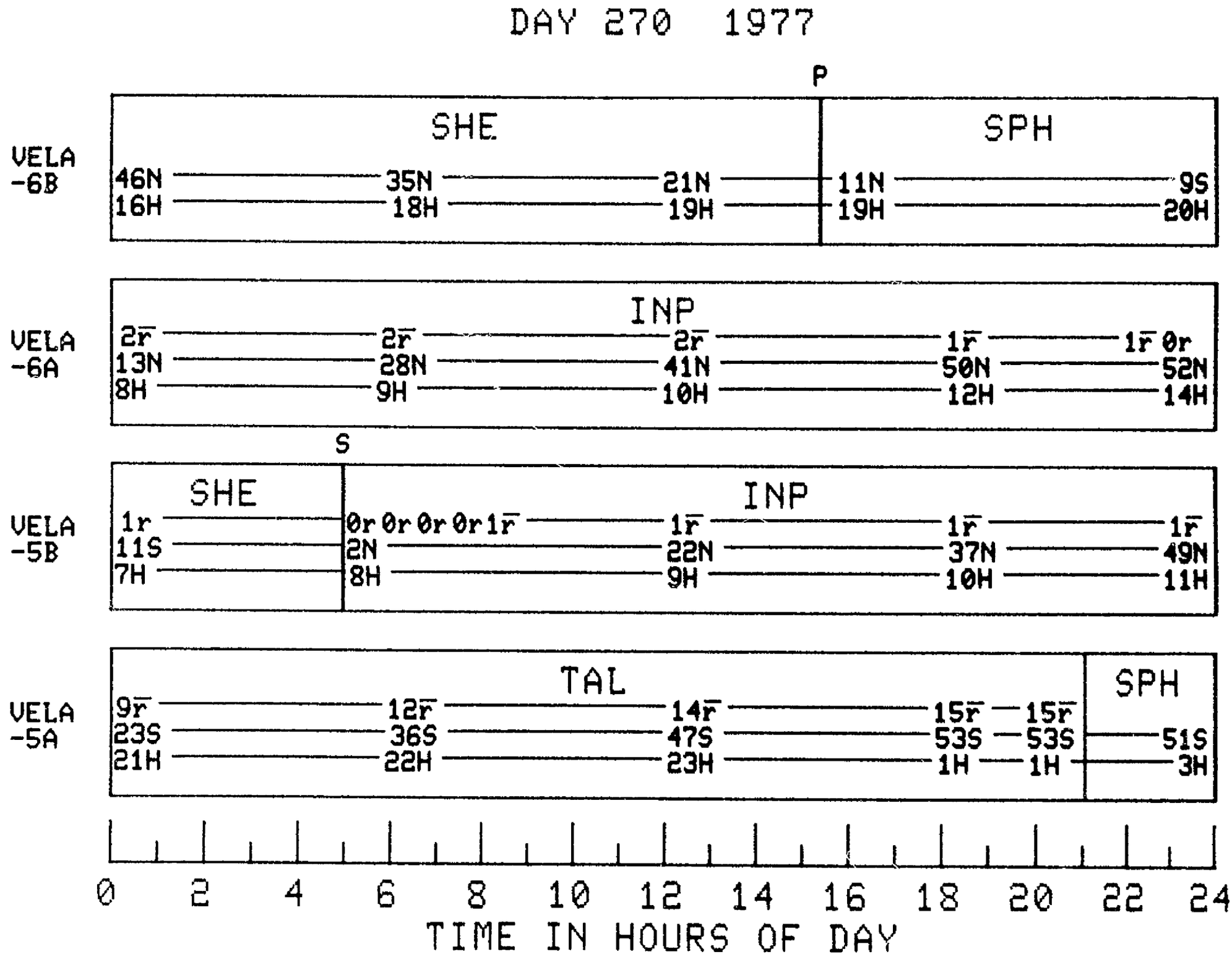

S
INP
SHE
VELA -6B
2r̄ 2r̄ 1r̄ 0r 0r 1r
27N 40N 50N 52N 46N
9H 10H 12H 14H 16H
S
SHE
INP
VELA -6A
8r 0r 0r 1r̄ 2r̄
44S 32S 10S 8S 13N
5H 6H 7H 7H 8H
P
SPH
SHE
VELA -5B
53S 49S 44S 27S 11S
2H 3H 4H 6H 7H
P
SHE
SPH
TAL
VELA -5A
9r̄ 9r̄
34N 20N 8N 14S 23S
17H 18H 19H 20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 269 1977

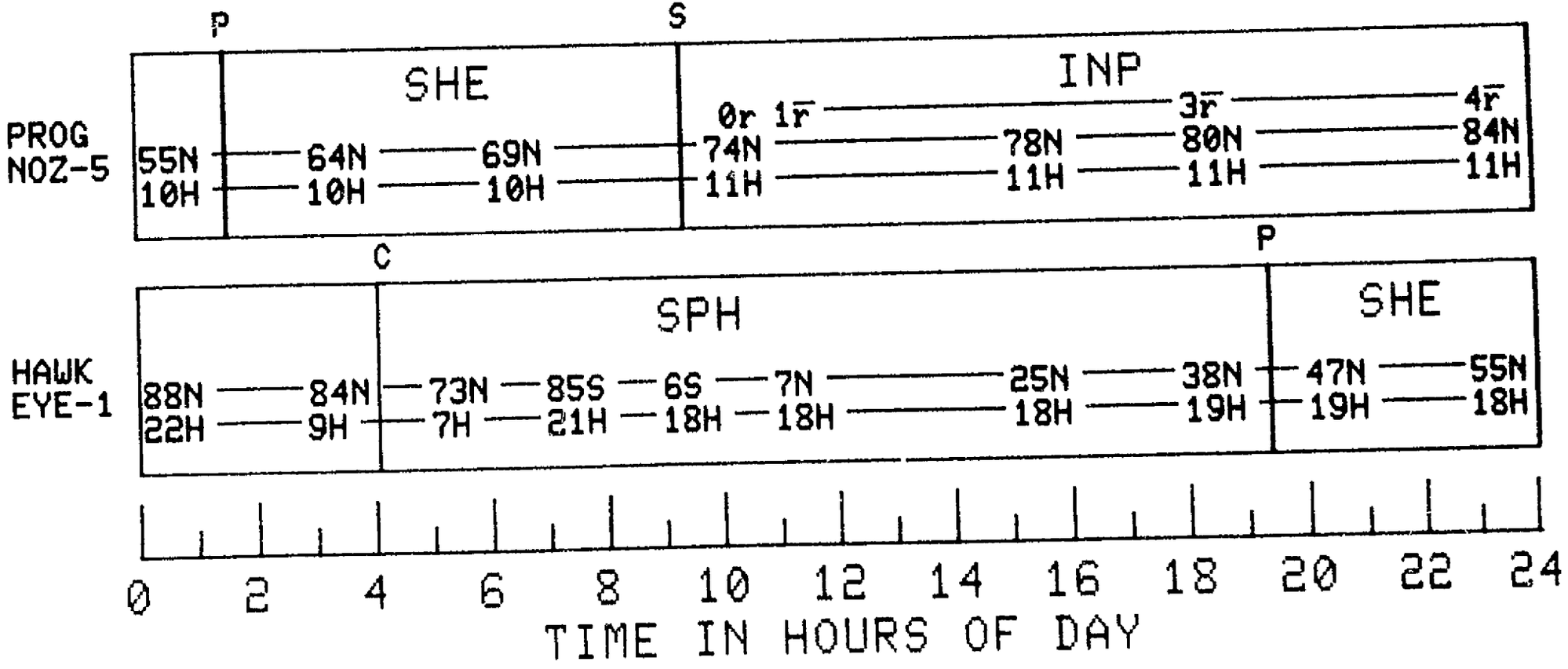

P
SHE
SPH
PROG
NOZ-5
71N
22H
65N
22H
55N
22H
28N
22H
77S
23H
32N
10H
55N
10H
P
SHE
SPH
HAWK
EYE-1
59N
18H
55N
17H
49N
18H
46N
18H
48N
19H
55N
20H
65N
20H
76N
21H
87N
22H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 270 1977

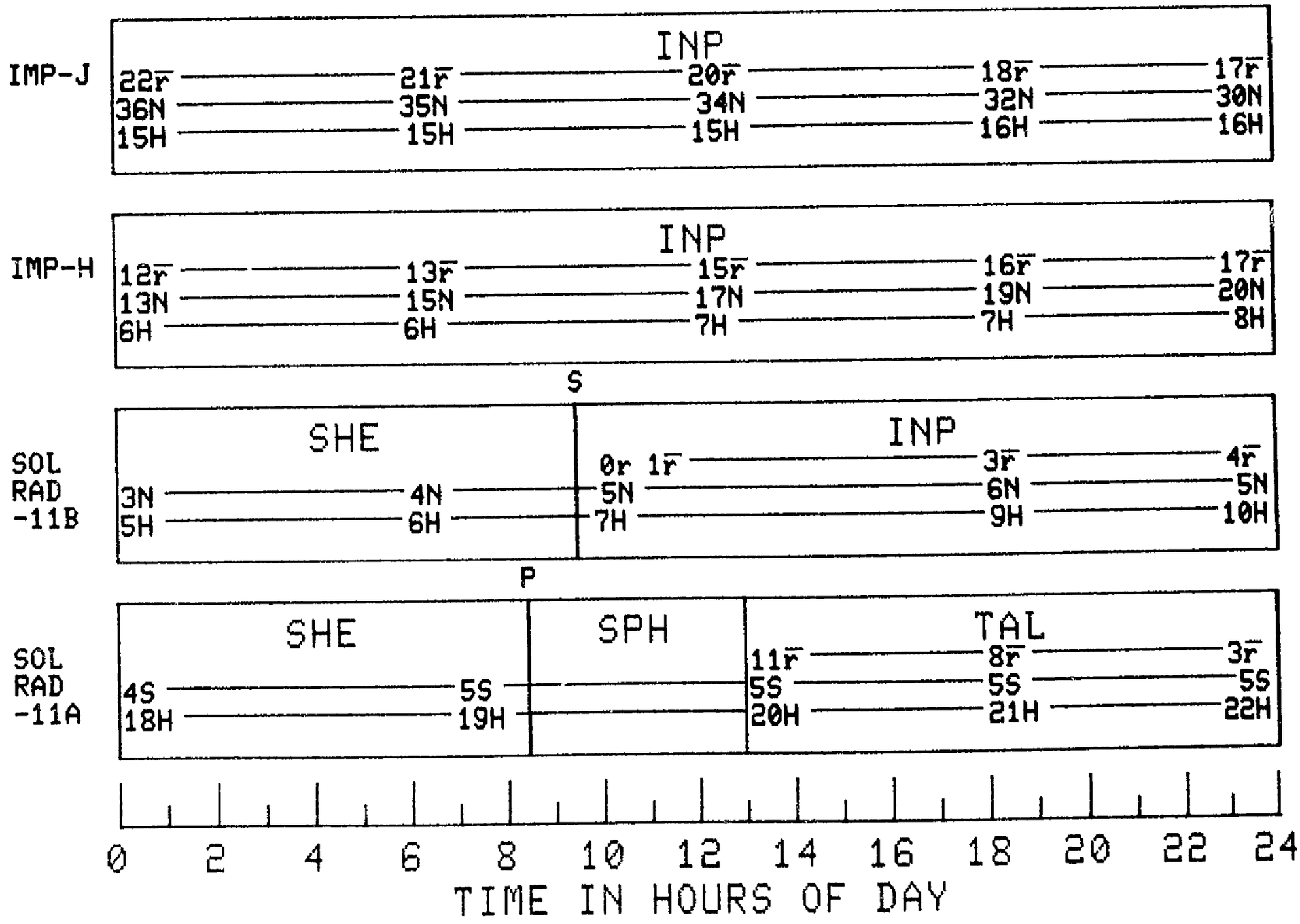

IMP-J
INP
25r̄ 25r̄ 24r̄ 23r̄ 22r̄
36N 37N 37N 37N 36N
13H 13H 14H 14H 15H
IMP-K
INP
3r̄ 6r̄ 8r̄ 10r̄ 12r̄
4N 6N 9N 11N 13N
5H 5H 5H 6H 6H
P
SOL RAD -11B
TAL
SPH
SHE
0r 1r 2r 3r 5r 7r 5r
4S 2S 0N 1N 2N 3N
0H 2H 3H 4H 4H 5H
S
SOL RAD -11A
INP
SHE
4r̄ 4r̄ 2r̄ 1r̄ 0r 4r
3N 1N 0N 2S 4S
13H 14H 15H 16H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 270 1977
P
SHE
SPH
VELA -6B
46N 35N 21N 11N 9S
16H 18H 19H 19H 20H
INP
VELA -6A
2r 2r 2r 1r 1r 0r
13N 28N 41N 50N 52N
8H 9H 10H 12H 14H
S
SHE
INP
VELA -5B
1r 0r 0r 0r 0r 1r 1r 1r 1r
11S 2N 22N 37N 49N
7H 8H 9H 10H 11H
TAL
SPH
VELA -5A
9r 12r 14r 15r 15r
23S 36S 47S 53S 53S 51S
21H 22H 23H 1H 1H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

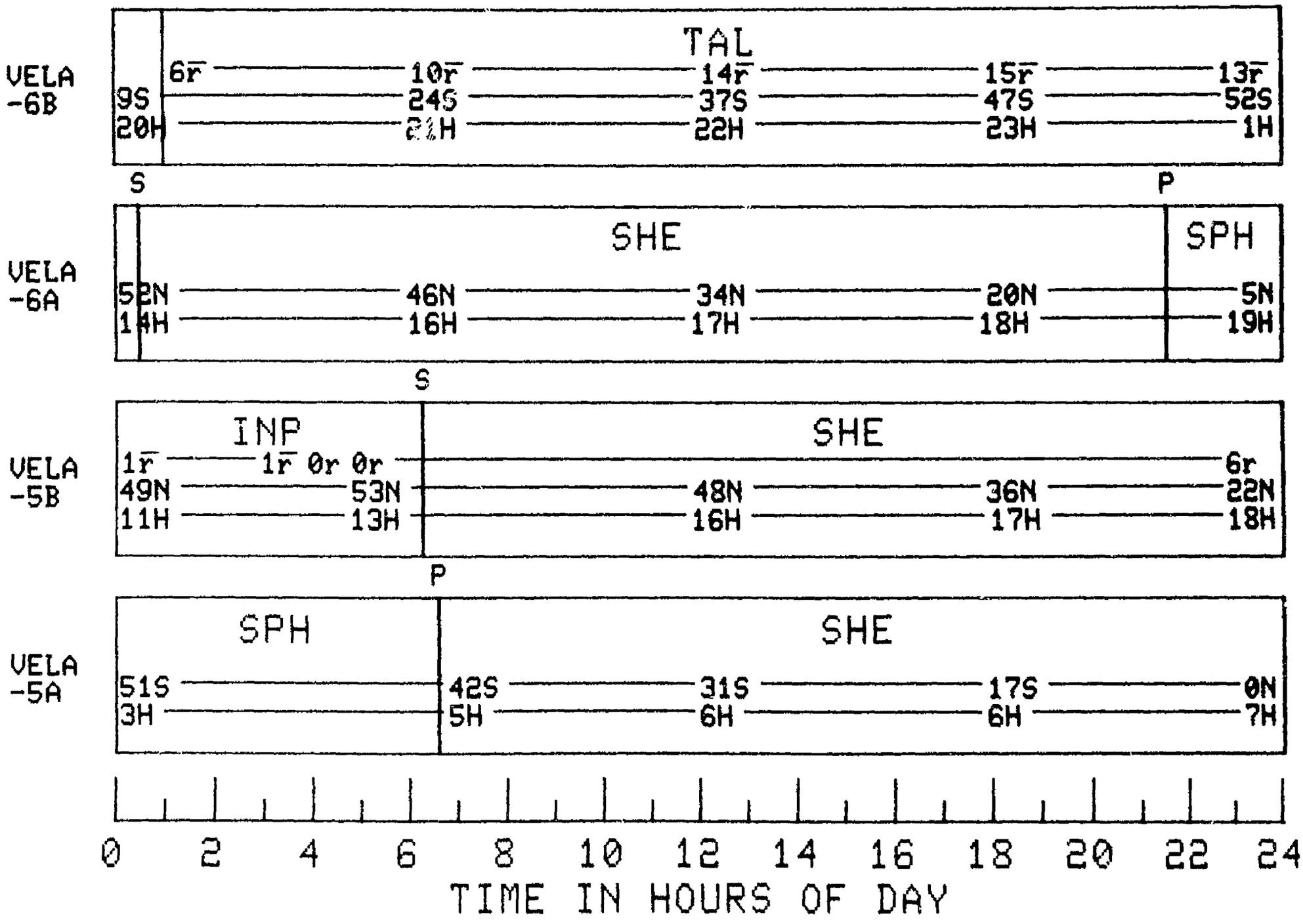
DAY 270 1977


P
S
SHE
INP
PROG
NOZ-5
55N
10H
64N
10H
69N
10H
0r
74N
11H
1r̄
78N
11H
3r̄
80N
11H
4r̄
84N
11H
C
P
SPH
SHE
HAWK
EYE-1
88N
22H
84N
9H
73N
7H
85S
21H
6S
18H
7N
18H
25N
18H
38N
19H
47N
19H
55N
18H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

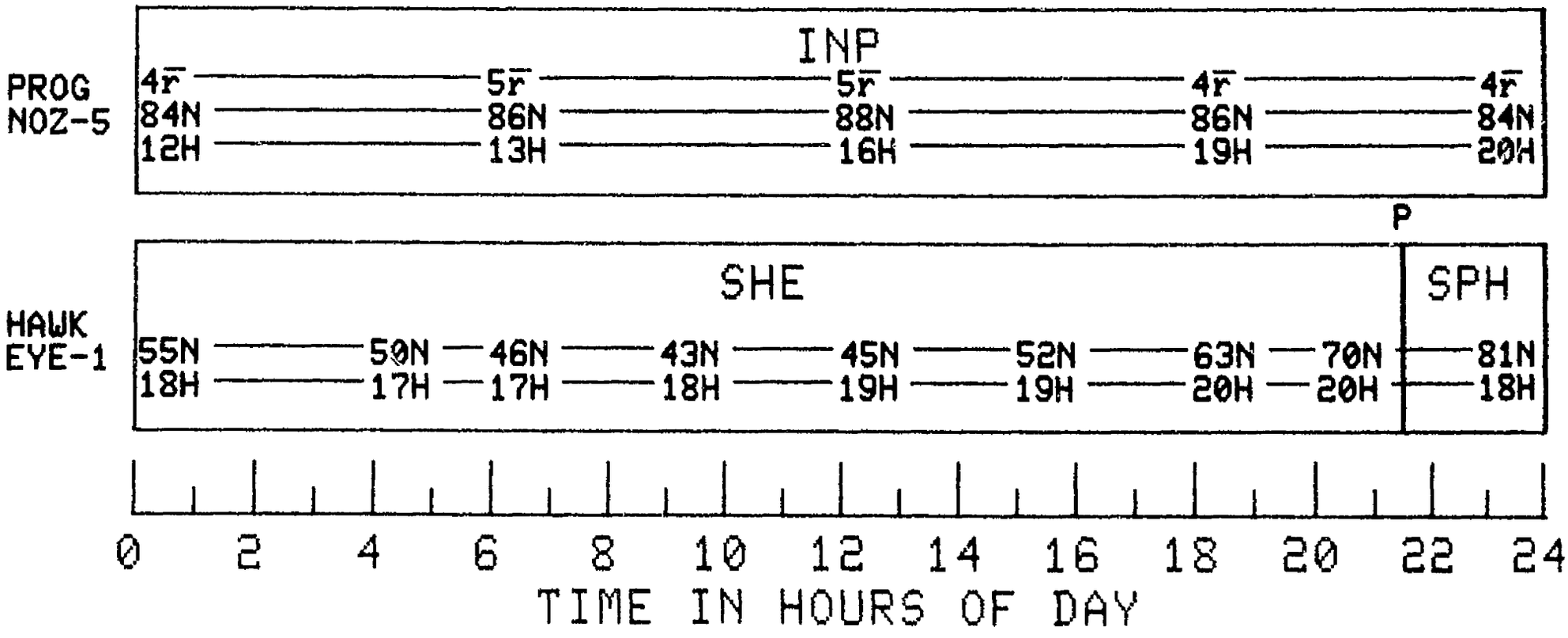
DAY 271 1977


IMP-J
INP
22r 21r 20r 18r 17r
36N 35N 34N 32N 30N
15H 15H 15H 16H 16H
IMP-H
INP
12r 13r 15r 16r 17r
13N 15N 17N 19N 20N
6H 6H 7H 7H 8H
S
SOL RAD -11B
SHE
3N 4N
5H 6H
INP
0r 1r 3r 4r
5N 6N 5N
7H 9H 10H
P
SOL RAD -11A
SHE
4S 5S
18H 19H
SPH
TAL
11r 8r 3r
5S 5S 5S
20H 21H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

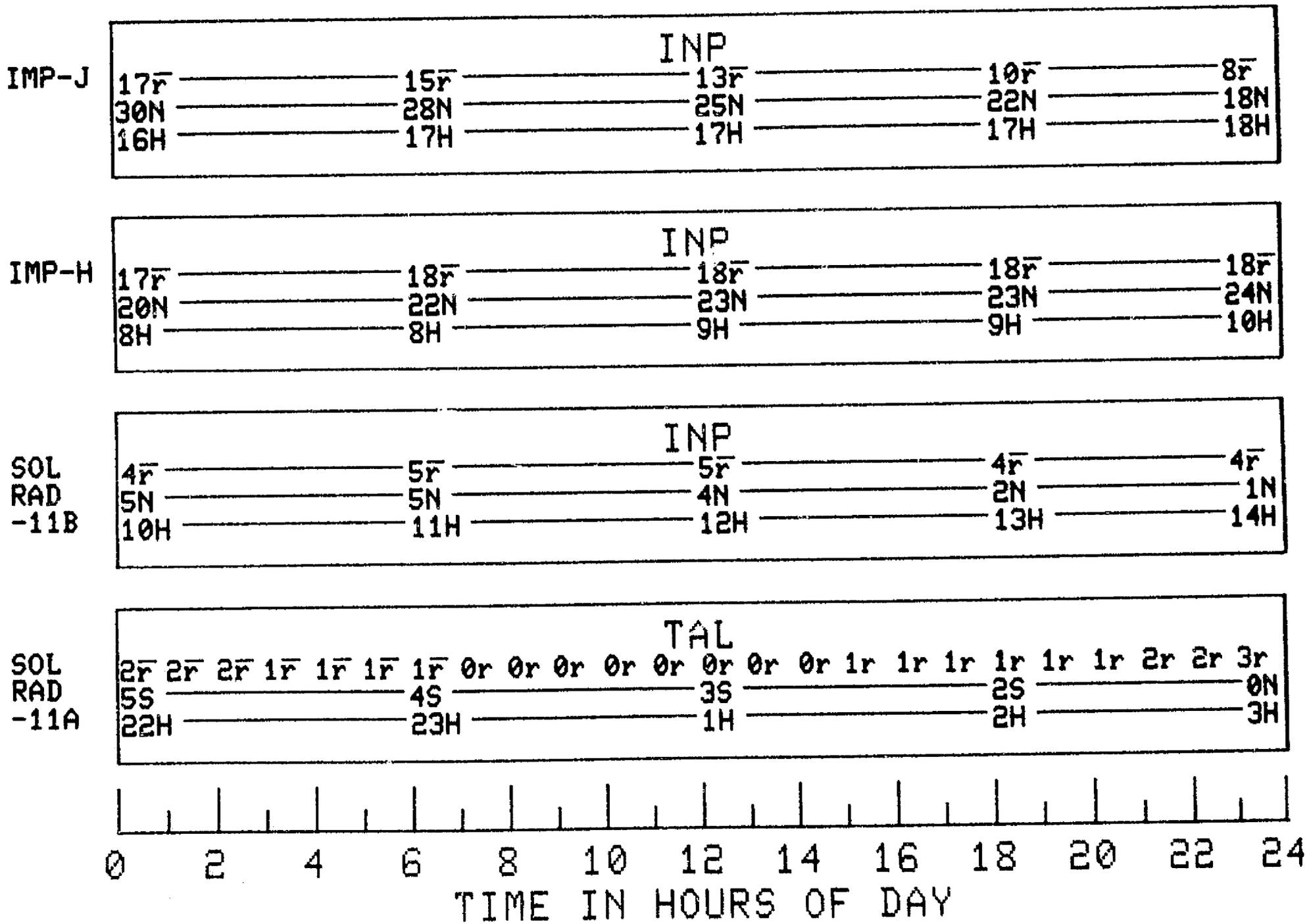
DAY 271 1977

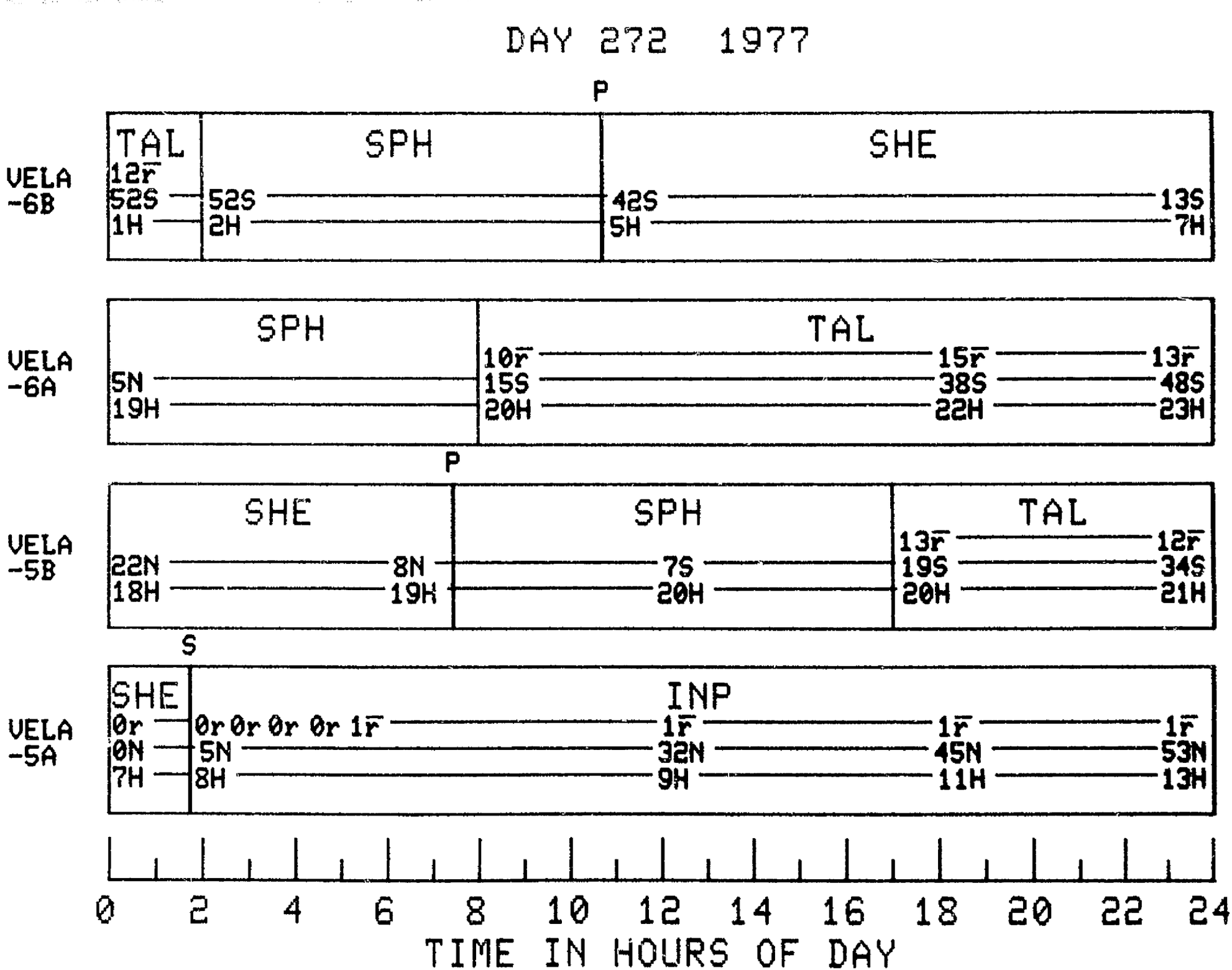

VELA -6B
TAL
6r 10r 14r 15r 13r
9S 24S 37S 47S 52S
20H 21H 22H 23H 1H
S
P
VELA -6A
SHE
SPH
52N 46N 34N 20N 5N
14H 16H 17H 18H 19H
S
VELA -5B
INP
SHE
1r 1r 0r 0r 6r
49N 53N 48N 36N 22N
11H 13H 16H 17H 18H
P
VELA -5A
SPH
SHE
51S 42S 31S 17S 0N
3H 5H 6H 6H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 271 1977

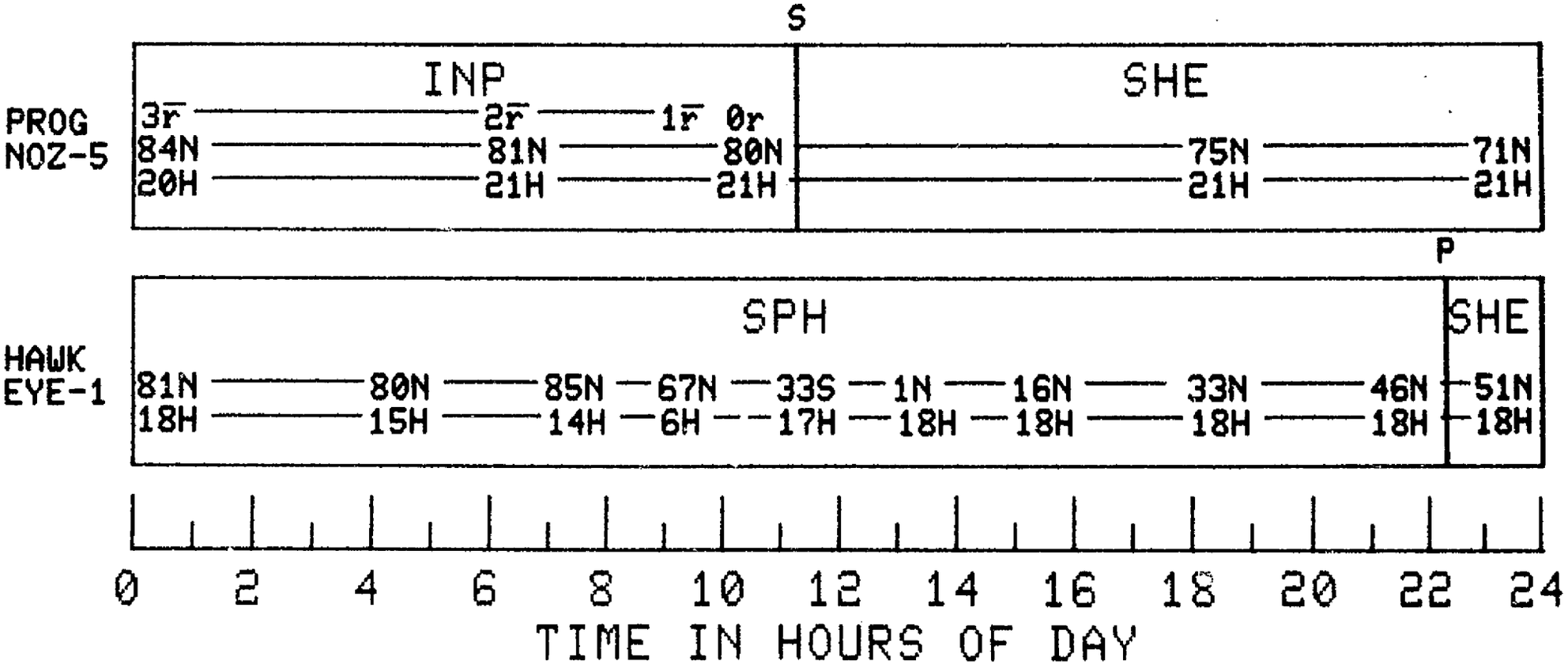

INP
PROG
NOZ-5
4r̄
84N
12H
5r̄
86N
13H
5r̄
88N
16H
4r̄
86N
19H
4r̄
84N
20H
P
SHE
SPH
HAWK
EYE-1
55N
18H
50N
17H
46N
17H
43N
18H
45N
19H
52N
19H
63N
20H
70N
20H
81N
18H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

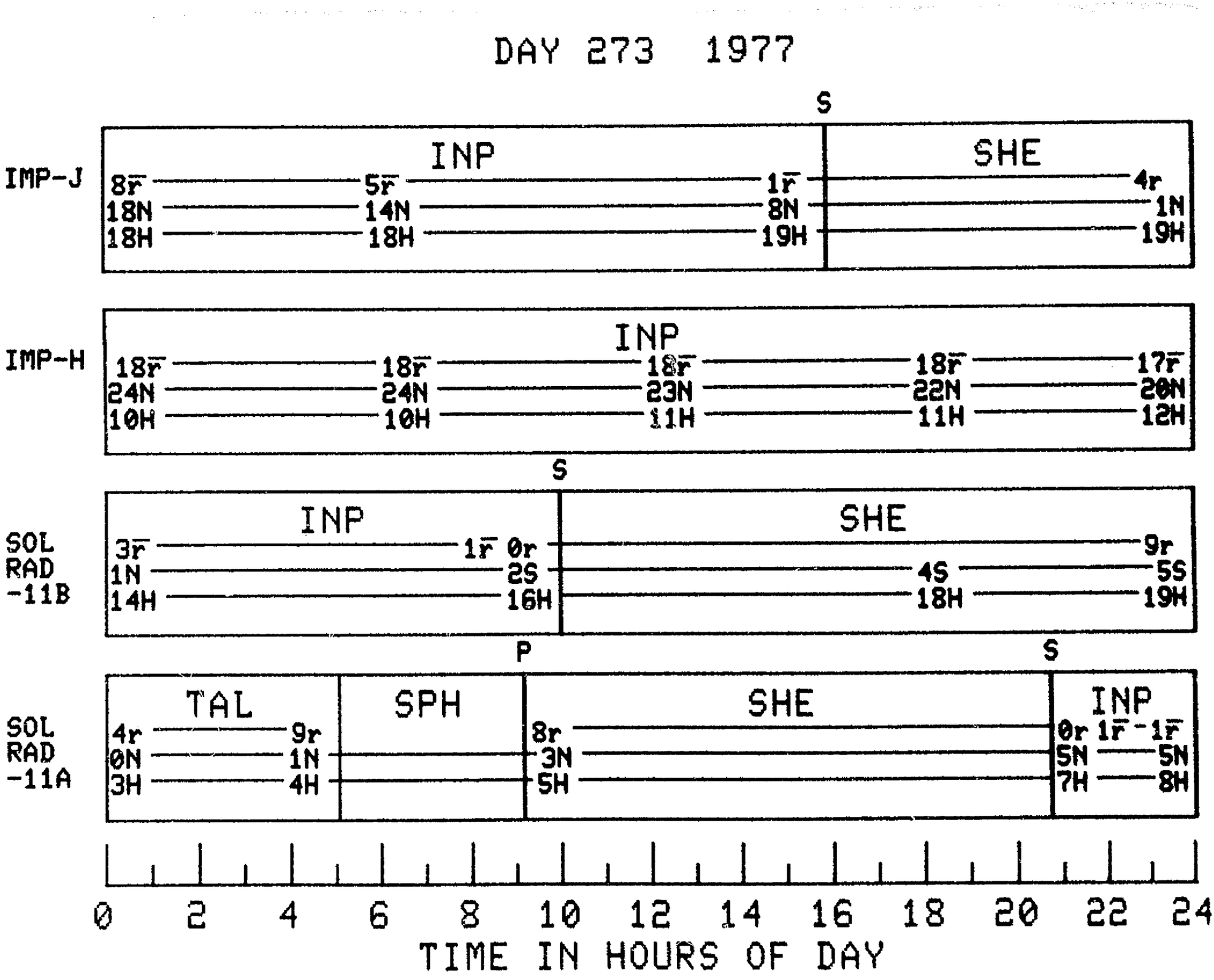
DAY 272 1977


IMP-J
INP
17r̄ 15r̄ 13r̄ 10r̄ 8r̄
30N 28N 25N 22N 18N
16H 17H 17H 17H 18H
IMP-H
INP
17r̄ 18r̄ 18r̄ 18r̄ 18r̄
20N 22N 23N 23N 24N
8H 8H 9H 9H 10H
SOL RAD -11B
INP
4r̄ 5r̄ 5r̄ 4r̄ 4r̄
5N 5N 4N 2N 1N
10H 11H 12H 13H 14H
SOL RAD -11A
TAL
2r̄ 2r̄ 2r̄ 1r̄ 1r̄ 1r̄ 1r̄ 0r 0r 0r 0r 0r 0r 0r 0r 1r 1r 1r 1r 1r 1r 2r 2r 3r
5S 4S 3S 2S 0N
22H 23H 1H 2H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

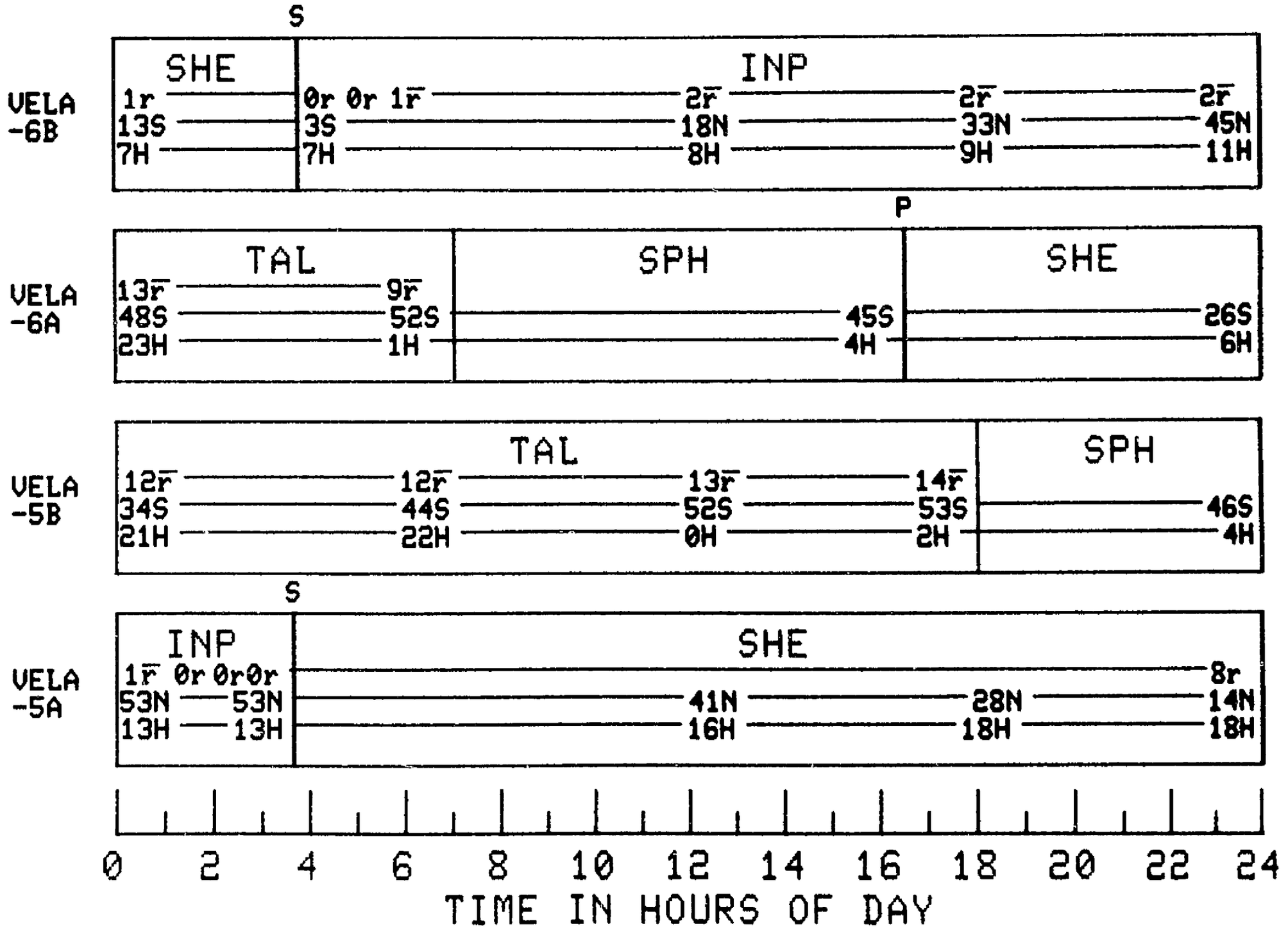

DAY 272 1977
P
VELA -6B
TAL
12r̄
52S
1H
SPH
52S
2H
SHE
42S
5H
13S
7H
VELA -6A
SPH
5N
19H
TAL
10r̄
15S
20H
15r̄
38S
22H
13r̄
48S
23H
P
VELA -5B
SHE
22N
18H
8N
19H
SPH
7S
20H
TAL
13r̄
19S
20H
12r̄
34S
21H
S
VELA -5A
SHE
0r
0N
7H
INP
0r 0r 0r 0r 1r̄
5N
8H
1r̄
32N
9H
1r̄
45N
11H
1r̄
53N
13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 272 1977

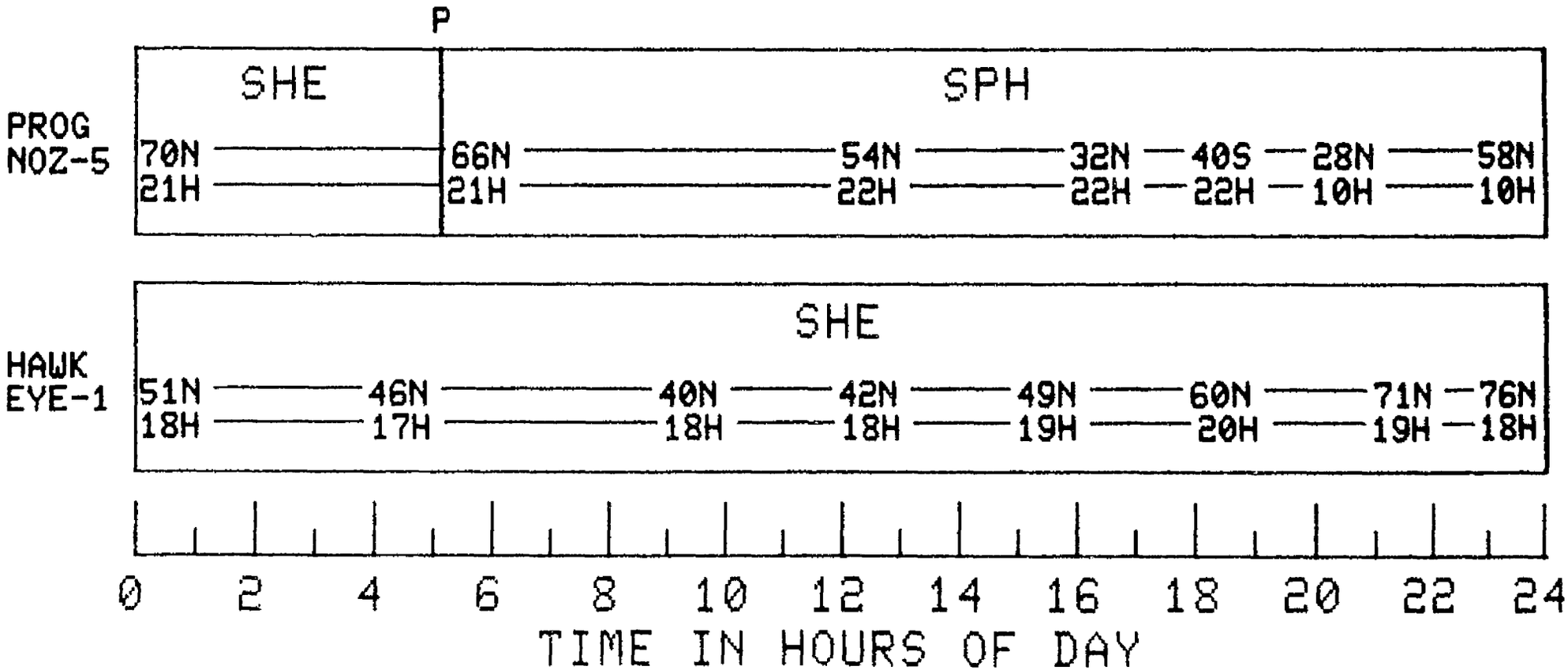

S
INP
SHE
PROG
NOZ-5
3r 2r 1r 0r
84N 81N 80N 75N 71N
20H 21H 21H 21H 21H
P
SPH
SHE
HAWK
EYE-1
81N 80N 85N 67N 33S 1N 16N 33N 46N 51N
18H 15H 14H 6H 17H 18H 18H 18H 18H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 273 1977
S
IMP-J
INP
SHE
8r̄ 5r̄ 1r̄ 4r
18N 14N 8N 1N
18H 18H 19H 19H
IMP-H
INP
18r̄ 18r̄ 18r̄ 18r̄ 17r̄
24N 24N 23N 22N 20N
10H 10H 11H 11H 12H
S
SOL RAD -11B
INP
SHE
3r̄ 1r̄ 0r 9r
1N 2S 4S 5S
14H 16H 18H 19H
P
S
SOL RAD -11A
TAL
SPH
SHE
INP
4r 9r 8r 0r 1r̄ 1r̄
0N 1N 3N 5N 5N
3H 4H 5H 7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

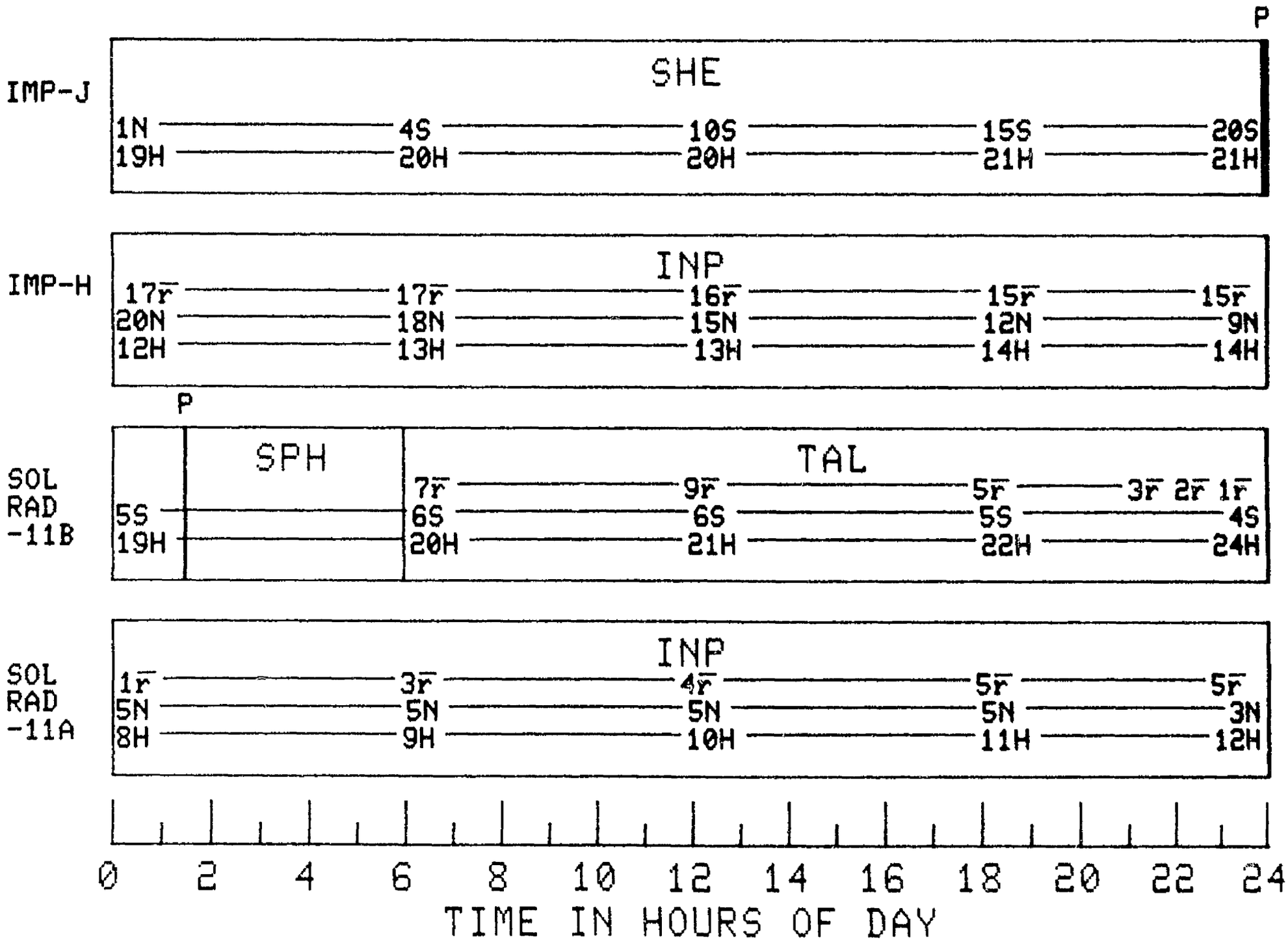
DAY 273 1977


S
SHE
INP
VELA -6B
1r 13S 7H
0r 0r 1r 3S 7H
2r 18N 8H
2r 33N 9H
2r 45N 11H
P
TAL
SPH
SHE
VELA -6A
13r 48S 23H
9r 52S 1H
45S 4H
26S 6H
TAL
SPH
VELA -5B
12r 34S 21H
12r 44S 22H
13r 52S 0H
14r 53S 2H
46S 4H
S
INP
SHE
VELA -5A
1r 0r 0r0r 53N 13H
53N 13H
41N 16H
28N 18H
8r 14N 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

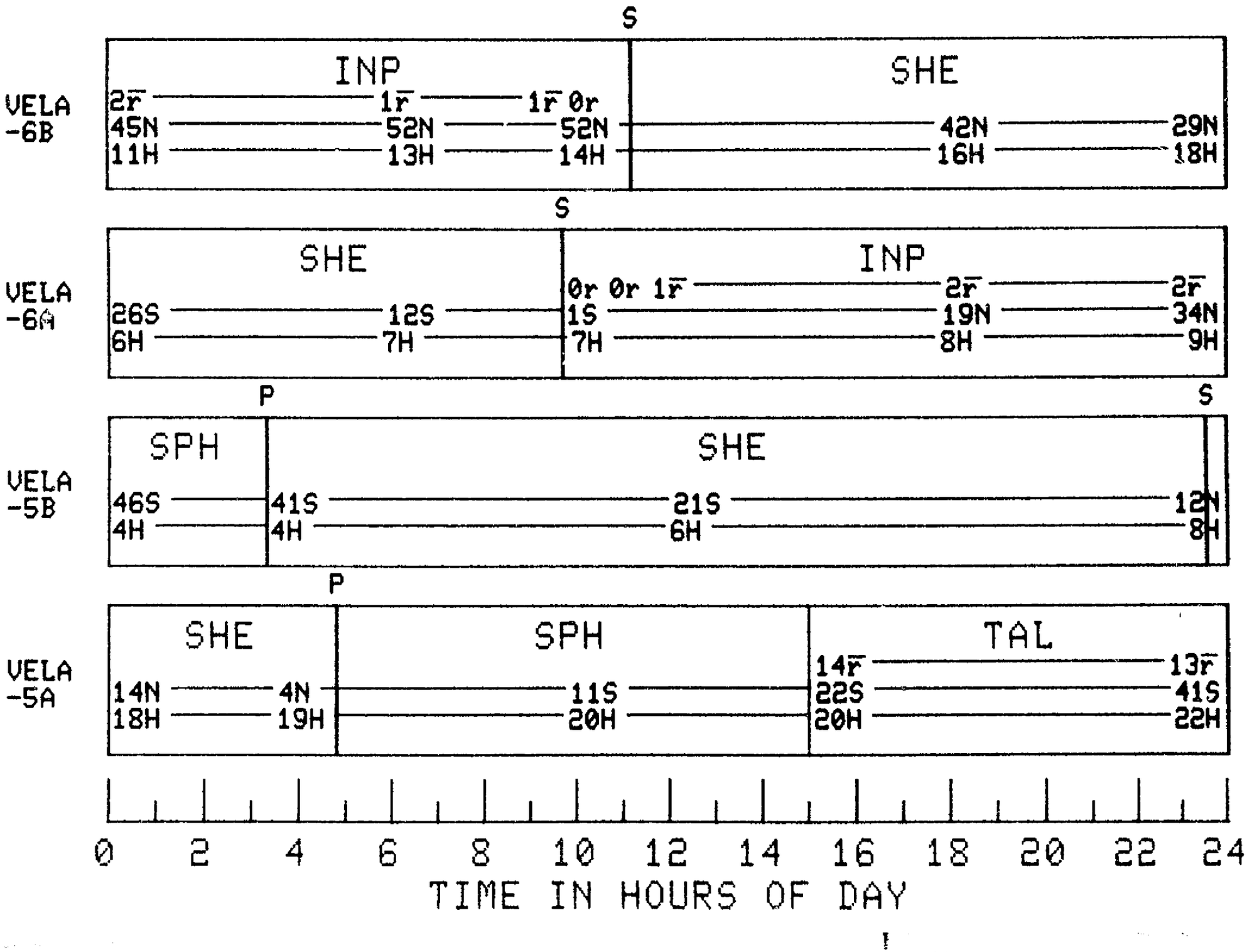
DAY 273 1977


P
SHE
SPH
PROG
NOZ-5
70N
21H
66N
21H
54N
22H
32N
22H
40S
22H
28N
10H
58N
10H
SHE
HAWK
EYE-1
51N
18H
46N
17H
40N
18H
42N
18H
49N
19H
60N
20H
71N
19H
76N
18H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

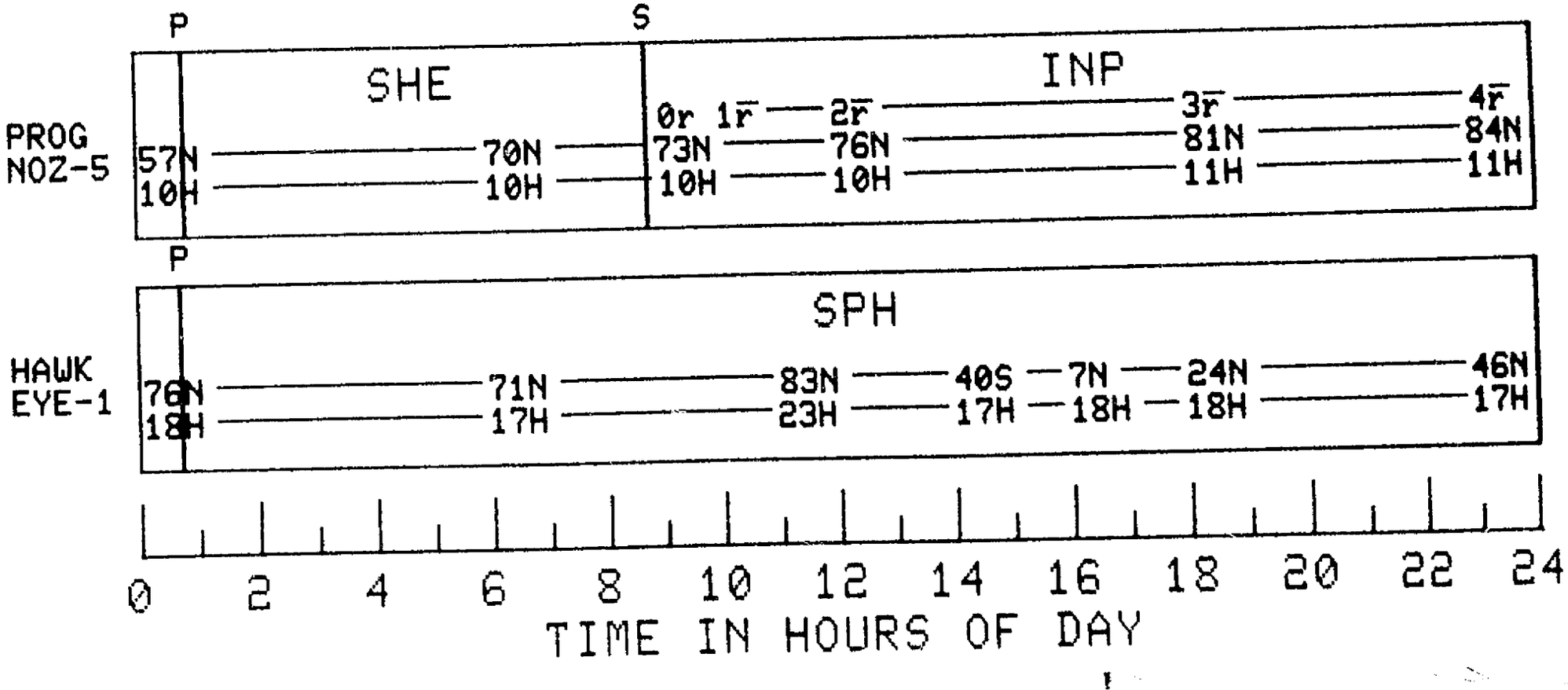
DAY 274 1977


P
IMP-J
SHE
1N 4S 10S 15S 20S
19H 20H 20H 21H 21H
IMP-H
INP
17r 17r 16r 15r 15r
20N 18N 15N 12N 9N
12H 13H 13H 14H 14H
P
SOL RAD -11B
SPH
TAL
7r 9r 5r 3r 2r 1r
5S 6S 6S 5S 4S
19H 20H 21H 22H 24H
SOL RAD -11A
INP
1r 3r 4r 5r 5r
5N 5N 5N 5N 3N
8H 9H 10H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

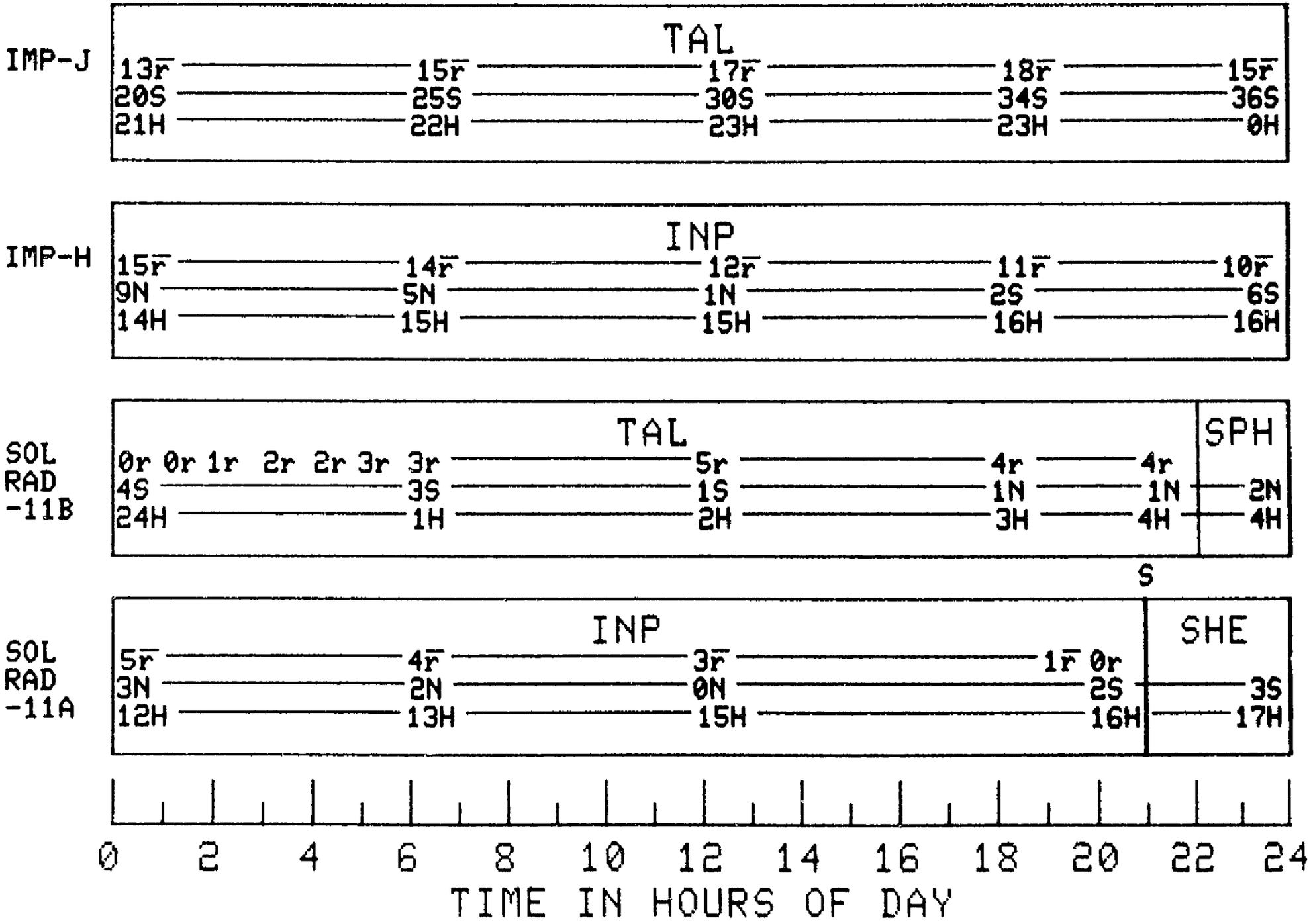
DAY 274 1977

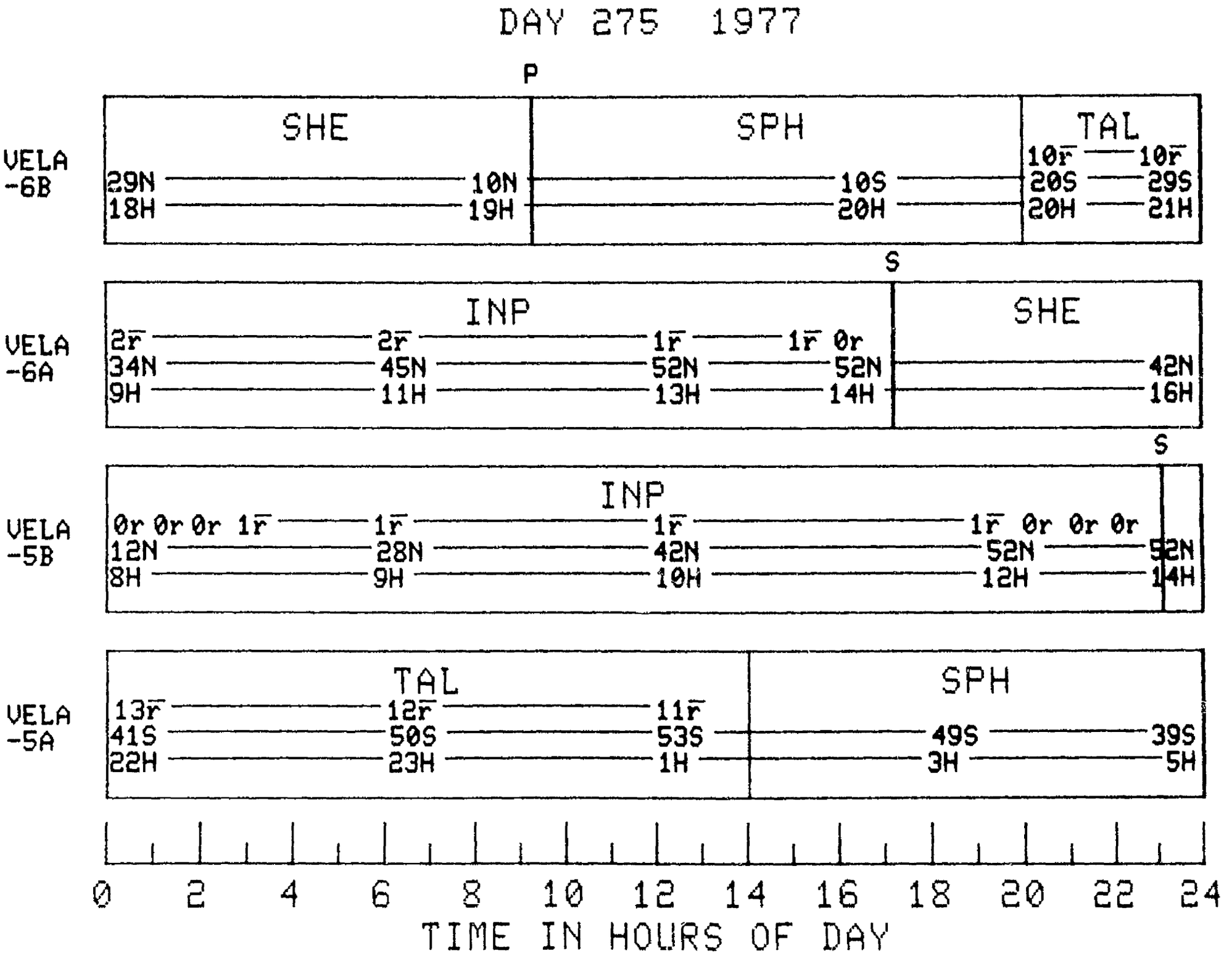

S
INP
SHE
VELA -6B
2r̄ 1r̄ 1r̄ 0r
45N 52N 52N 42N 29N
11H 13H 14H 16H 18H
S
SHE
INP
VELA -6A
26S 12S 0r 0r 1r̄ 2r̄ 2r̄
6H 7H 1S 19N 34N
7H 8H 9H
P
S
SPH
SHE
VELA -5B
46S 41S 21S 12N
4H 4H 6H 8H
P
SHE
SPH
TAL
VELA -5A
14N 4N 11S 14r̄ 13r̄
18H 19H 20H 22S 41S
20H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 274 1977

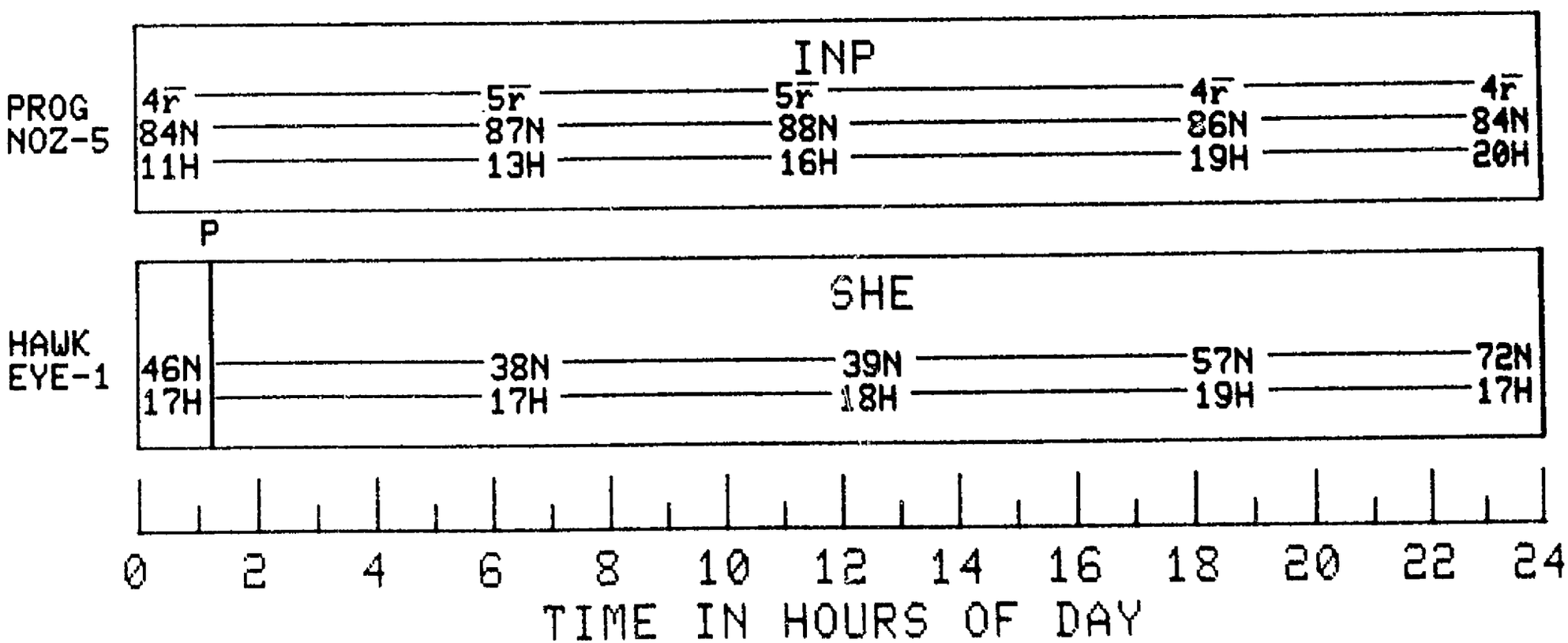

P
S
SHE
INP
PROG
NOZ-5
57N
10H
70N
10H
0r
1r
2r
3r
4r
73N
10H
76N
10H
81N
11H
84N
11H
P
SPH
HAWK
EYE-1
76N
18H
71N
17H
83N
23H
40S
17H
7N
18H
24N
18H
46N
17H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

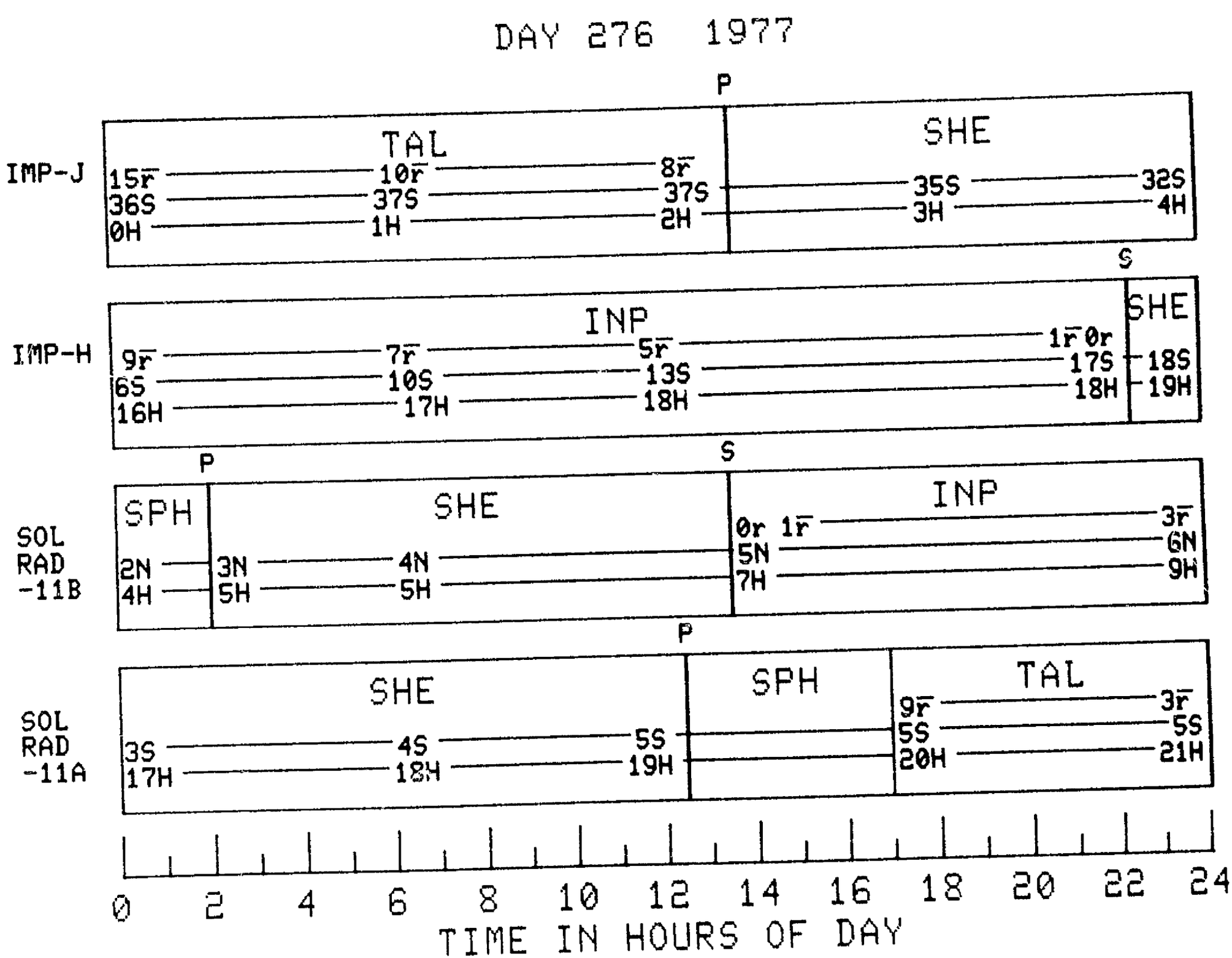
DAY 275 1977


IMP-J
TAL
13r 15r 17r 18r 15r
20S 25S 30S 34S 36S
21H 22H 23H 23H 0H
IMP-H
INP
15r 14r 12r 11r 10r
9N 5N 1N 2S 6S
14H 15H 15H 16H 16H
SOL RAD -11B
TAL
SPH
0r 0r 1r 2r 2r 3r 3r 5r 4r 4r
4S 3S 1S 1N 1N 2N
24H 1H 2H 3H 4H 4H
S
SOL RAD -11A
INP
SHE
5r 4r 3r 1r 0r
3N 2N 0N 2S 3S
12H 13H 15H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

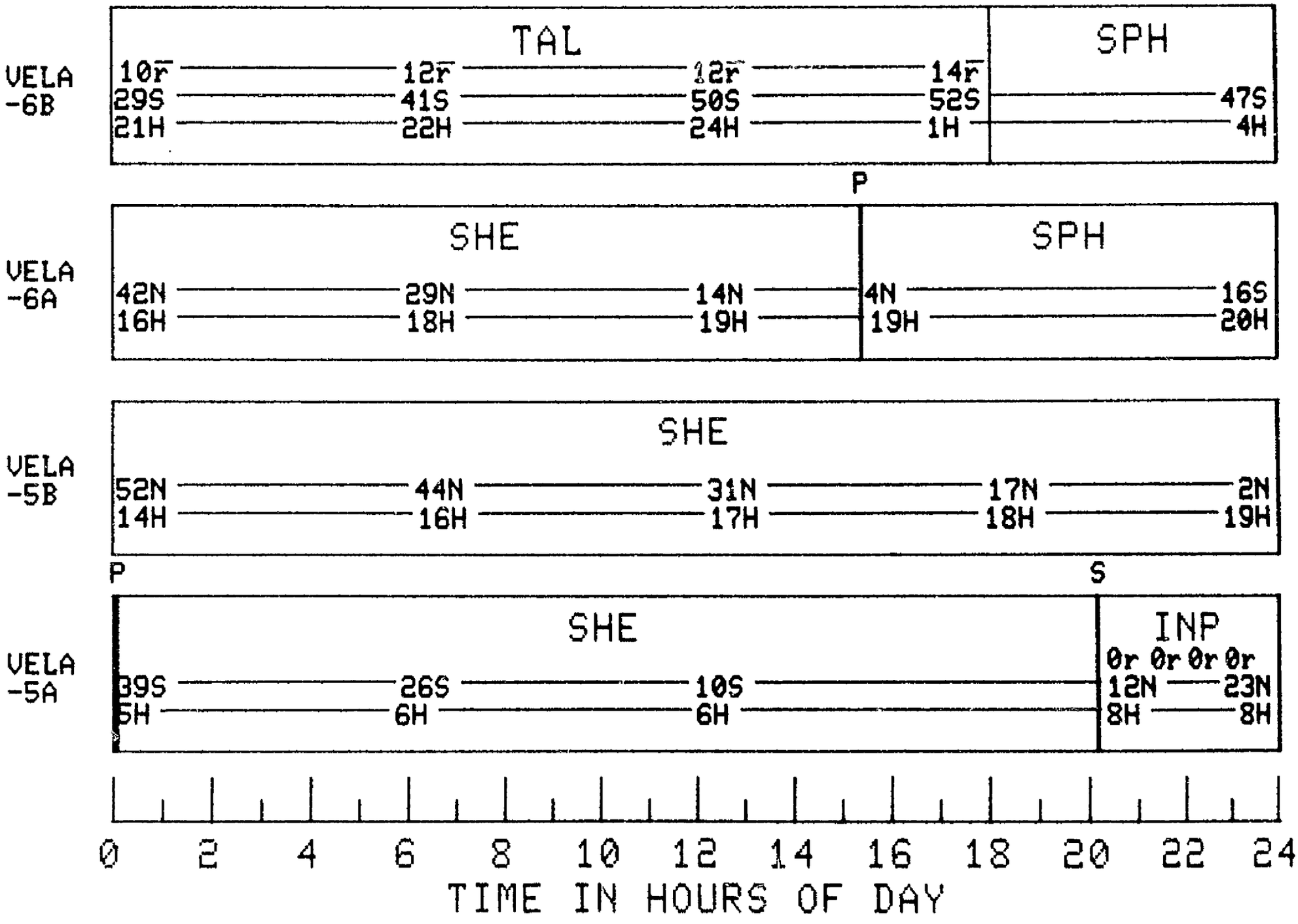

DAY 275 1977
P
VELA -6B
SHE
SPH
TAL
29N 10N
18H 19H
10S
20H
10r 10r
20S 29S
20H 21H
S
VELA -6A
INP
SHE
2r 2r 1r 1r 0r
34N 45N 52N 52N
9H 11H 13H 14H
42N
16H
S
VELA -5B
INP
0r 0r 0r 1r 1r 1r 1r 0r 0r 0r
12N 28N 42N 52N 52N
8H 9H 10H 12H 14H
VELA -5A
TAL
SPH
13r 12r 11r
41S 50S 53S
22H 23H 1H
49S 39S
3H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 275 1977

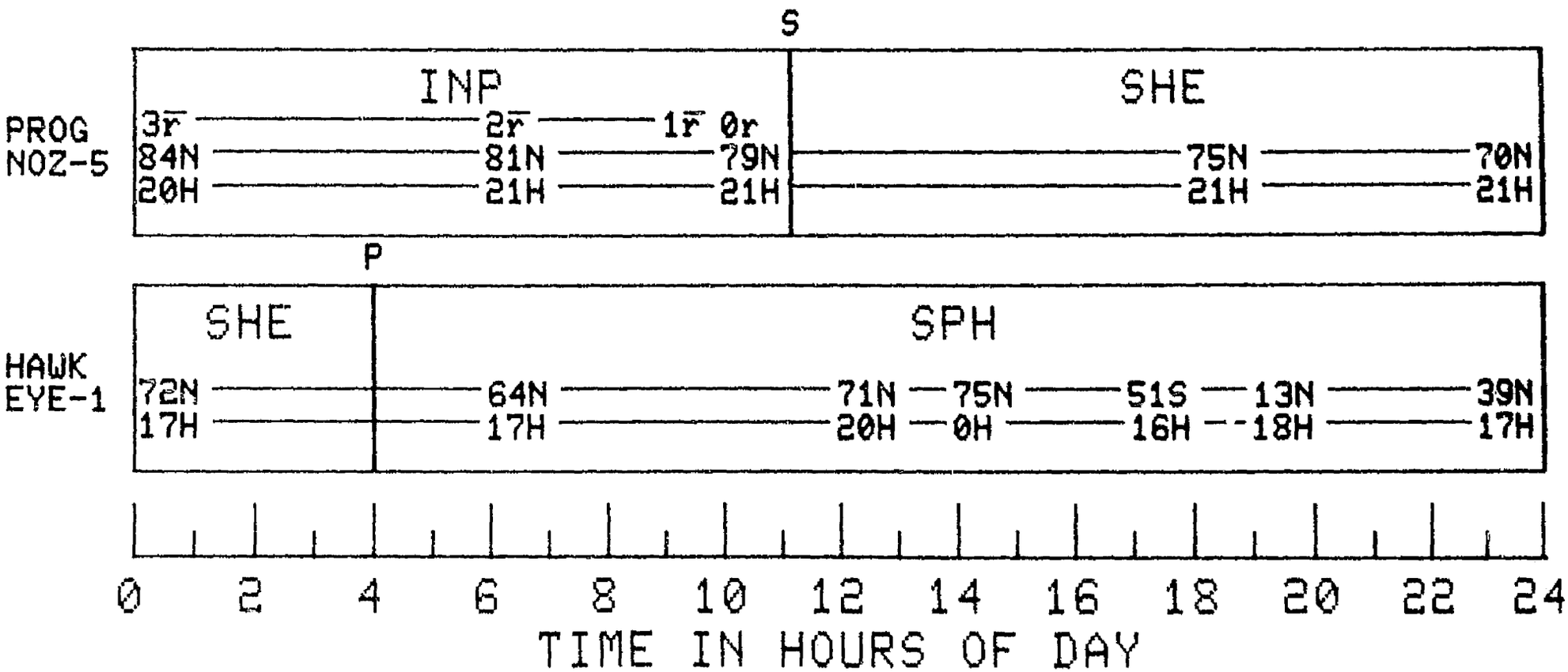

INP
PROG
NOZ-5
4r̄
84N
11H
5r̄
87N
13H
5r̄
88N
16H
4r̄
86N
19H
4r̄
84N
20H
P
SHE
HAWK
EYE-1
46N
17H
38N
17H
39N
18H
57N
19H
72N
17H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

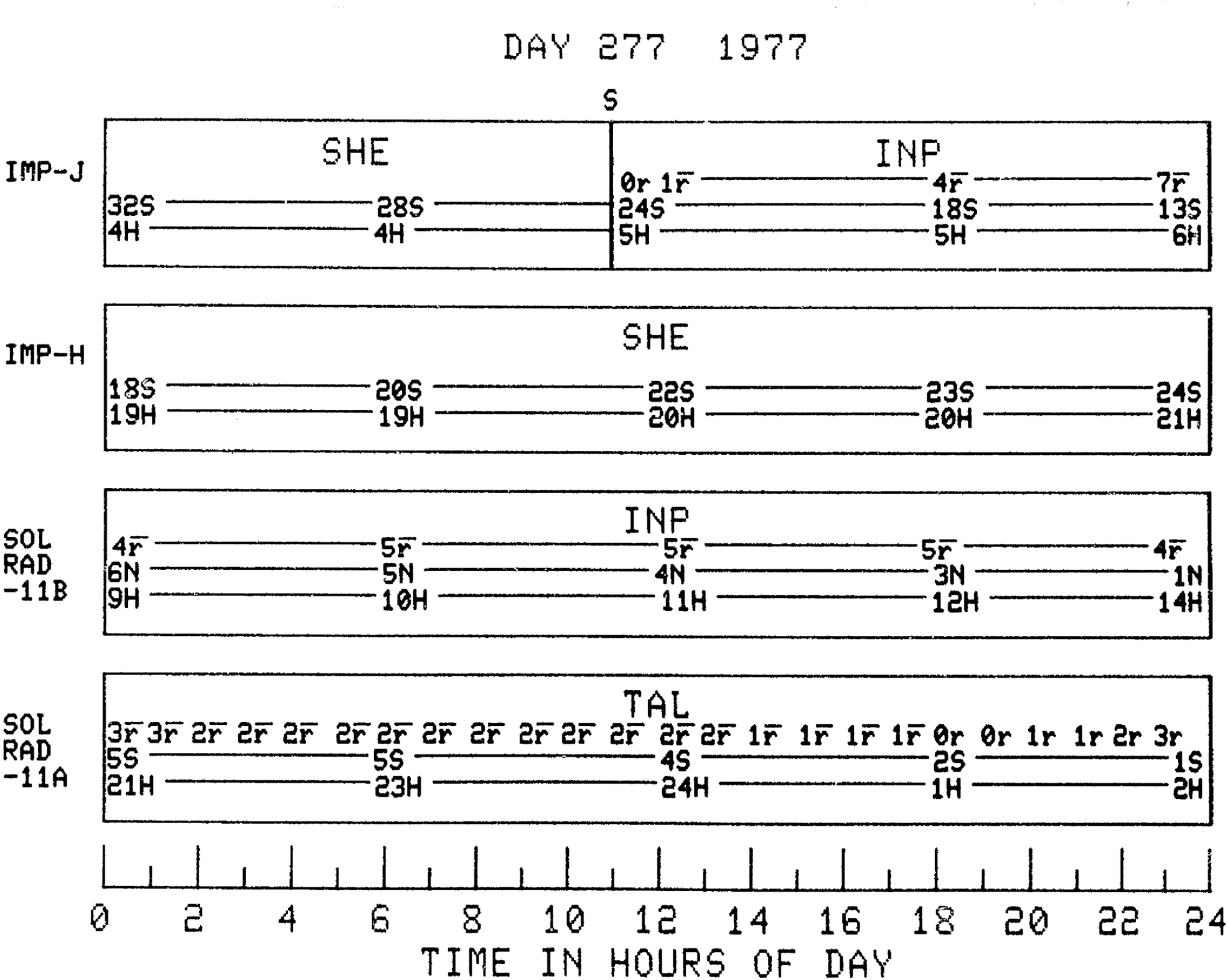

DAY 276 1977
IMP-J
TAL
SHE
P
15r̄ 10r̄ 8r̄
36S 37S 37S
0H 1H 2H
35S 32S
3H 4H
IMP-H
INP
SHE
S
9r̄ 7r̄ 5r̄ 1r̄ 0r
6S 10S 13S 17S 18S
16H 17H 18H 18H 19H
SOL RAD -11B
SPH
SHE
INP
P
S
2N 3N 4N
4H 5H 5H
0r 1r̄ 3r̄
5N 6N
7H 9H
SOL RAD -11A
SHE
SPH
TAL
P
3S 4S 5S
17H 18H 19H
9r̄ 3r̄
5S 5S
20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 276 1977

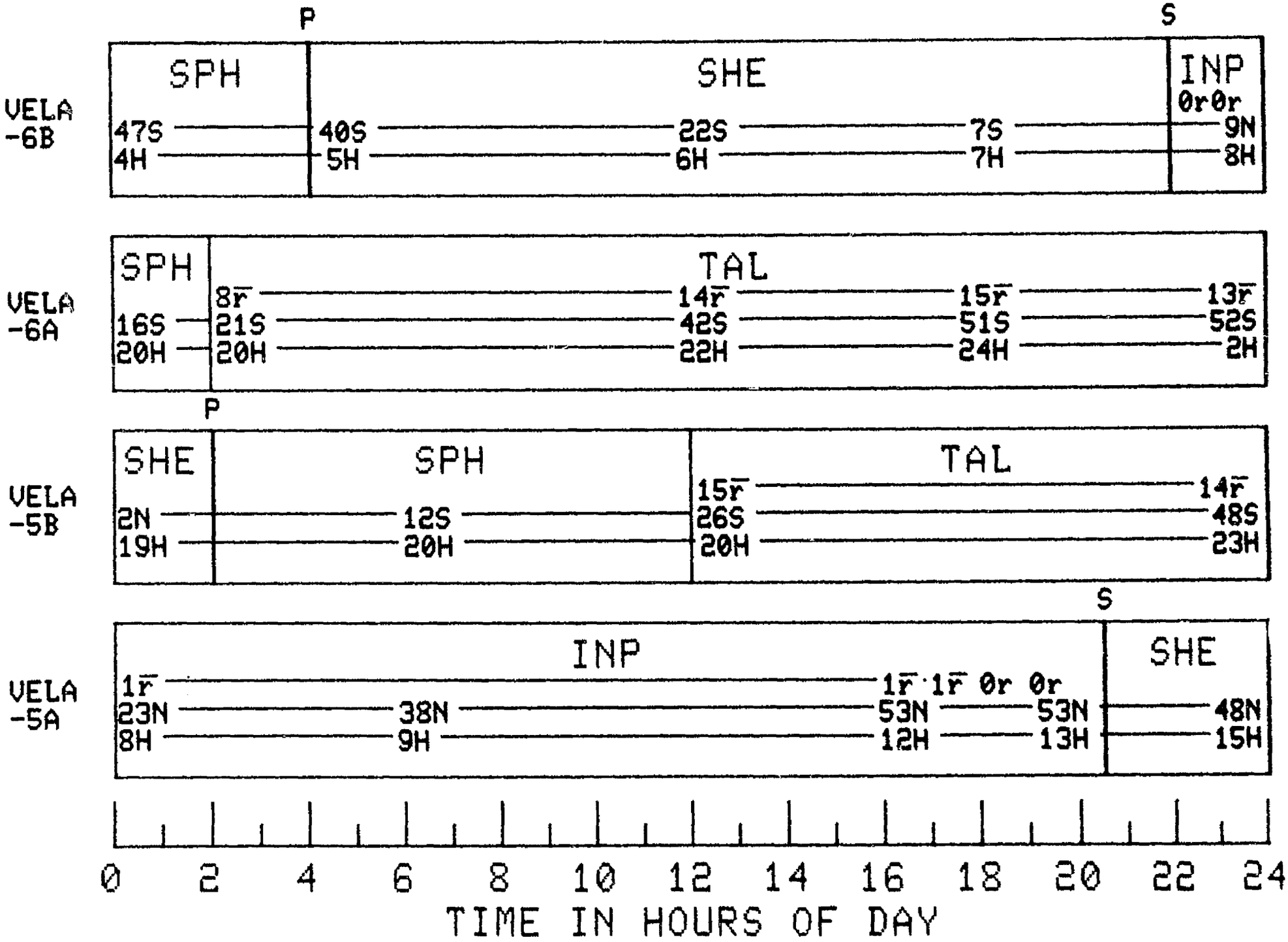

VELA -6B
TAL
SPH
10r 12r 12r 14r
29S 41S 50S 52S 47S
21H 22H 24H 1H 4H
P
VELA -6A
SHE
SPH
42N 29N 14N 4N 16S
16H 18H 19H 19H 20H
VELA -5B
SHE
52N 44N 31N 17N 2N
14H 16H 17H 18H 19H
P
S
VELA -5A
SHE
INP
39S 26S 10S 0r 0r 0r 0r
5H 6H 6H 12N 23N
8H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 276 1977

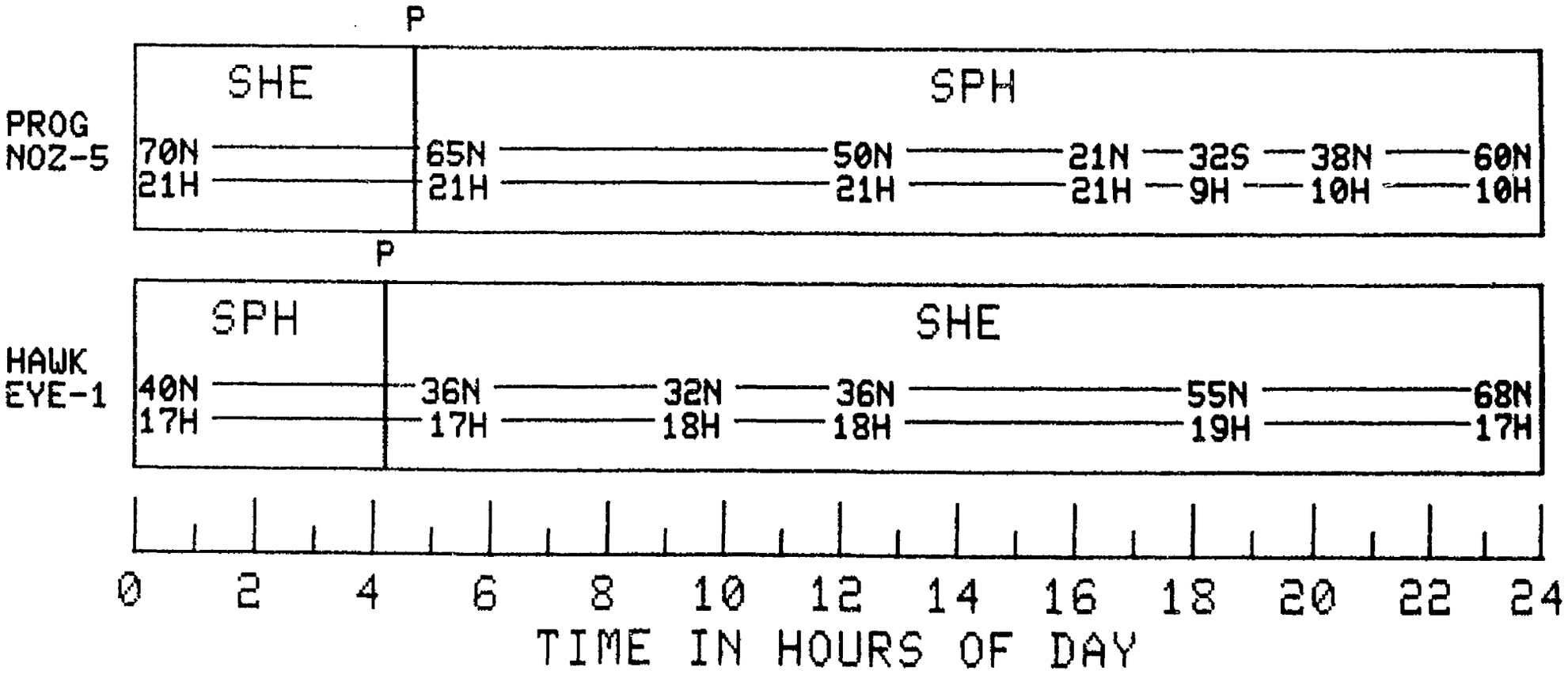

S
INP
SHE
PROG
NOZ-5
3r
2r
1r
0r
84N
81N
79N
75N
70N
20H
21H
21H
21H
21H
P
SHE
SPH
HAWK
EYE-1
72N
64N
71N
75N
51S
13N
39N
17H
17H
20H
0H
16H
18H
17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 277 1977
S
IMP-J
SHE
INP
32S 28S
4H 4H
0r 1r 4r 7r
24S 18S 13S
5H 5H 6H
IMP-H
SHE
18S 20S 22S 23S 24S
19H 19H 20H 20H 21H
SOL RAD -11B
INP
4r 5r 5r 5r 4r
6N 5N 4N 3N 1N
9H 10H 11H 12H 14H
SOL RAD -11A
TAL
3r 3r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 1r 1r 1r 1r 0r 0r 1r 1r 2r 3r
5S 5S 4S 2S 1S
21H 23H 24H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

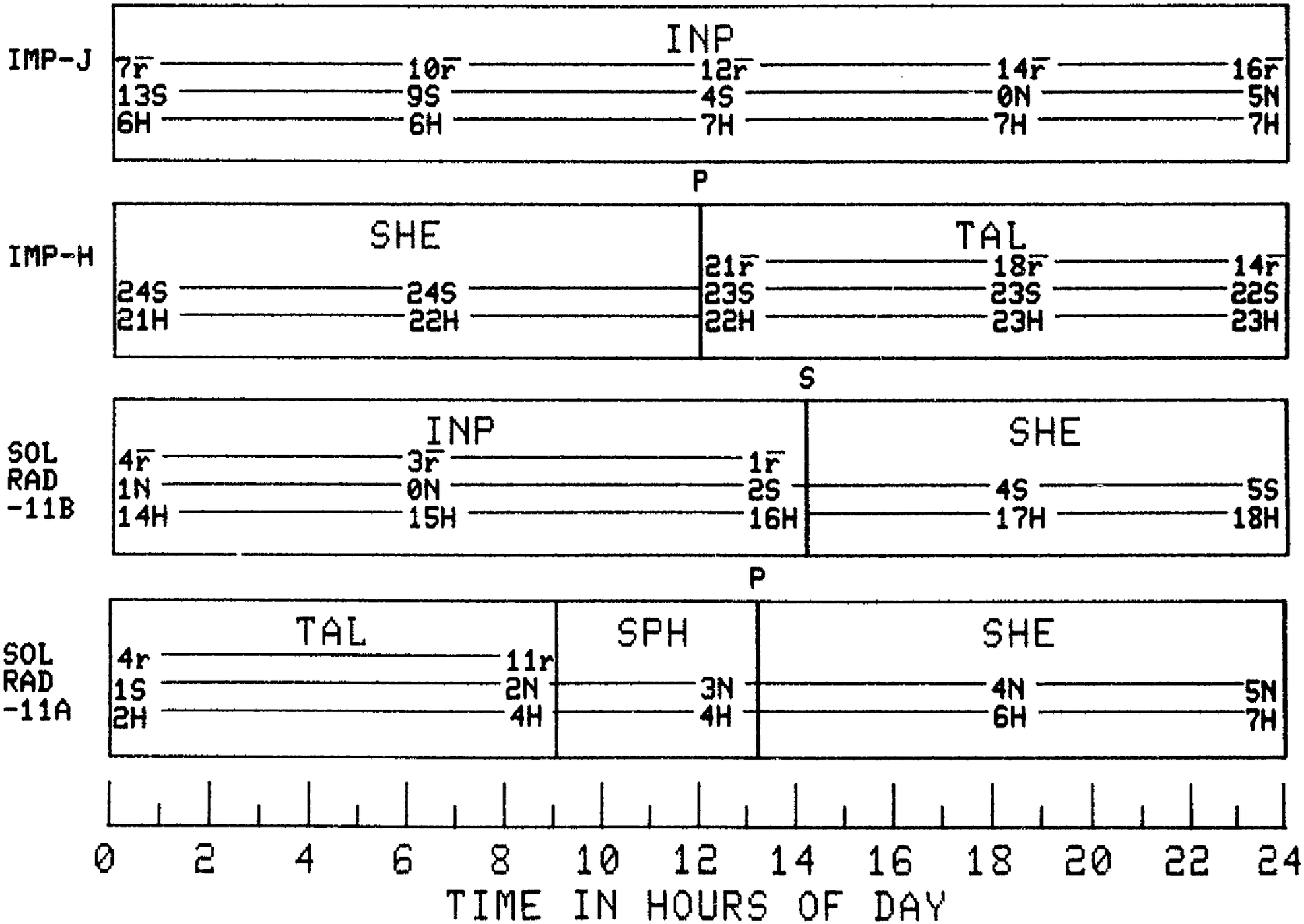
DAY 277 1977


P
S
VELA -6B
SPH
SHE
INP
0r 0r
47S 40S 22S 7S 9N
4H 5H 6H 7H 8H
VELA -6A
SPH
TAL
8r 14r 15r 13r
16S 21S 42S 51S 52S
20H 20H 22H 24H 2H
P
VELA -5B
SHE
SPH
TAL
15r 14r
2N 12S 26S 48S
19H 20H 20H 23H
S
VELA -5A
INP
SHE
1r 1r 1r 0r 0r
23N 38N 53N 53N 48N
8H 9H 12H 13H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

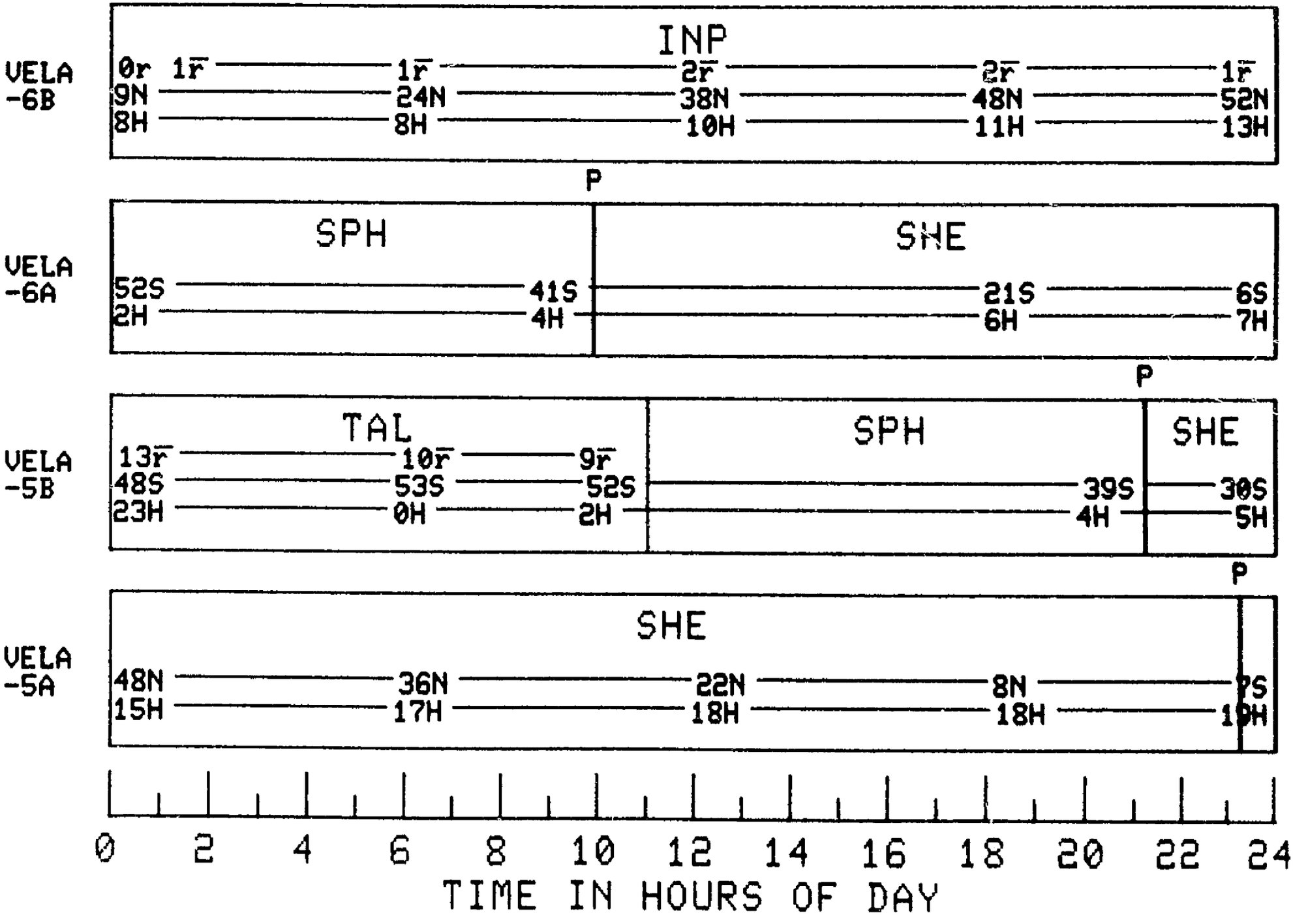
DAY 277 1977


P
SHE
SPH
PROG
NOZ-5
70N
21H
65N
21H
50N
21H
21N
21H
32S
9H
38N
10H
60N
10H
P
SPH
SHE
HAWK
EYE-1
40N
17H
36N
17H
32N
18H
36N
18H
55N
19H
68N
17H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

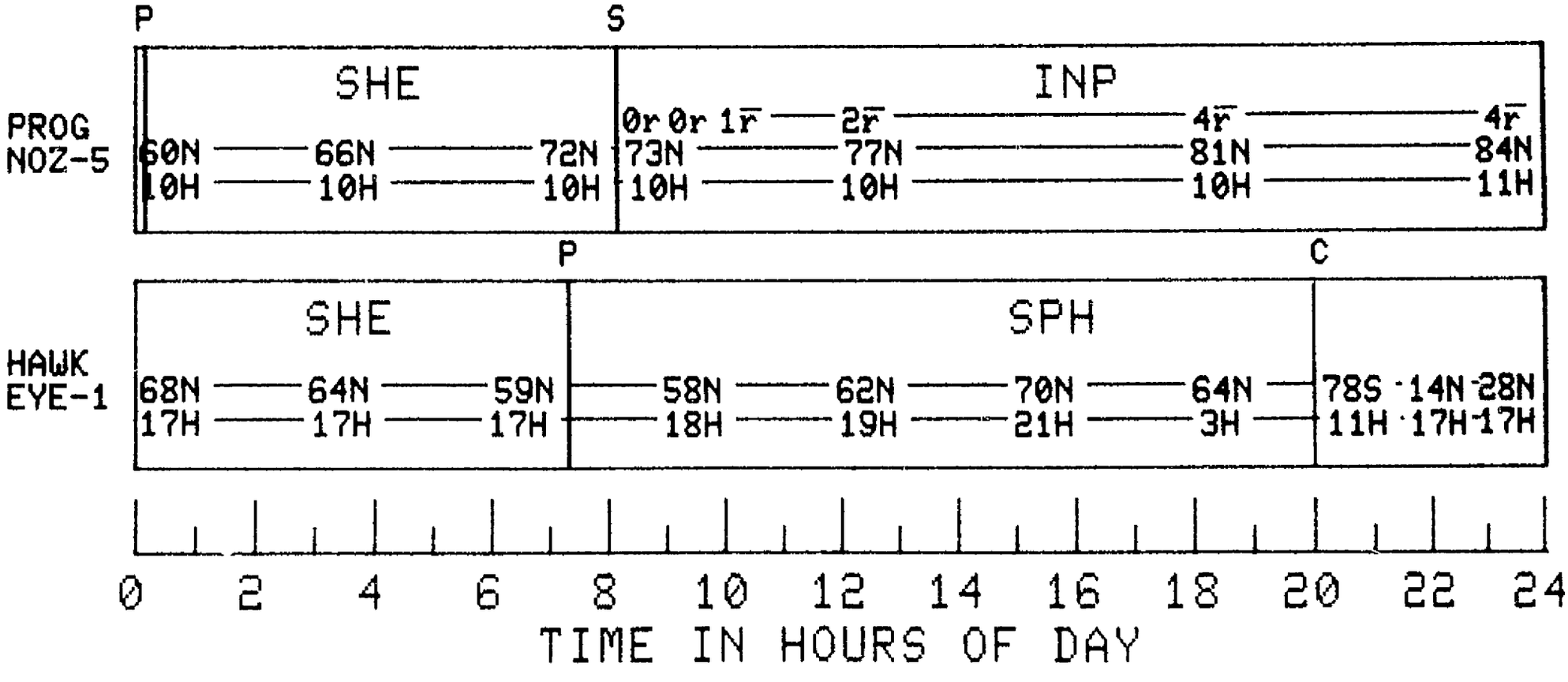
DAY 278 1977


IMP-J
INP
7r̄ 10r̄ 12r̄ 14r̄ 16r̄
13S 9S 4S 0N 5N
6H 6H 7H 7H 7H
P
IMP-H
SHE
24S 24S
21H 22H
TAL
21r̄ 18r̄ 14r̄
23S 23S 22S
22H 23H 23H
S
SOL RAD -11B
INP
4r̄ 3r̄ 1r̄
1N 0N 2S
14H 15H 16H
SHE
4S 5S
17H 18H
P
SOL RAD -11A
TAL
4r 11r
1S 2N
2H 4H
SPH
3N
4H
SHE
4N 5N
6H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

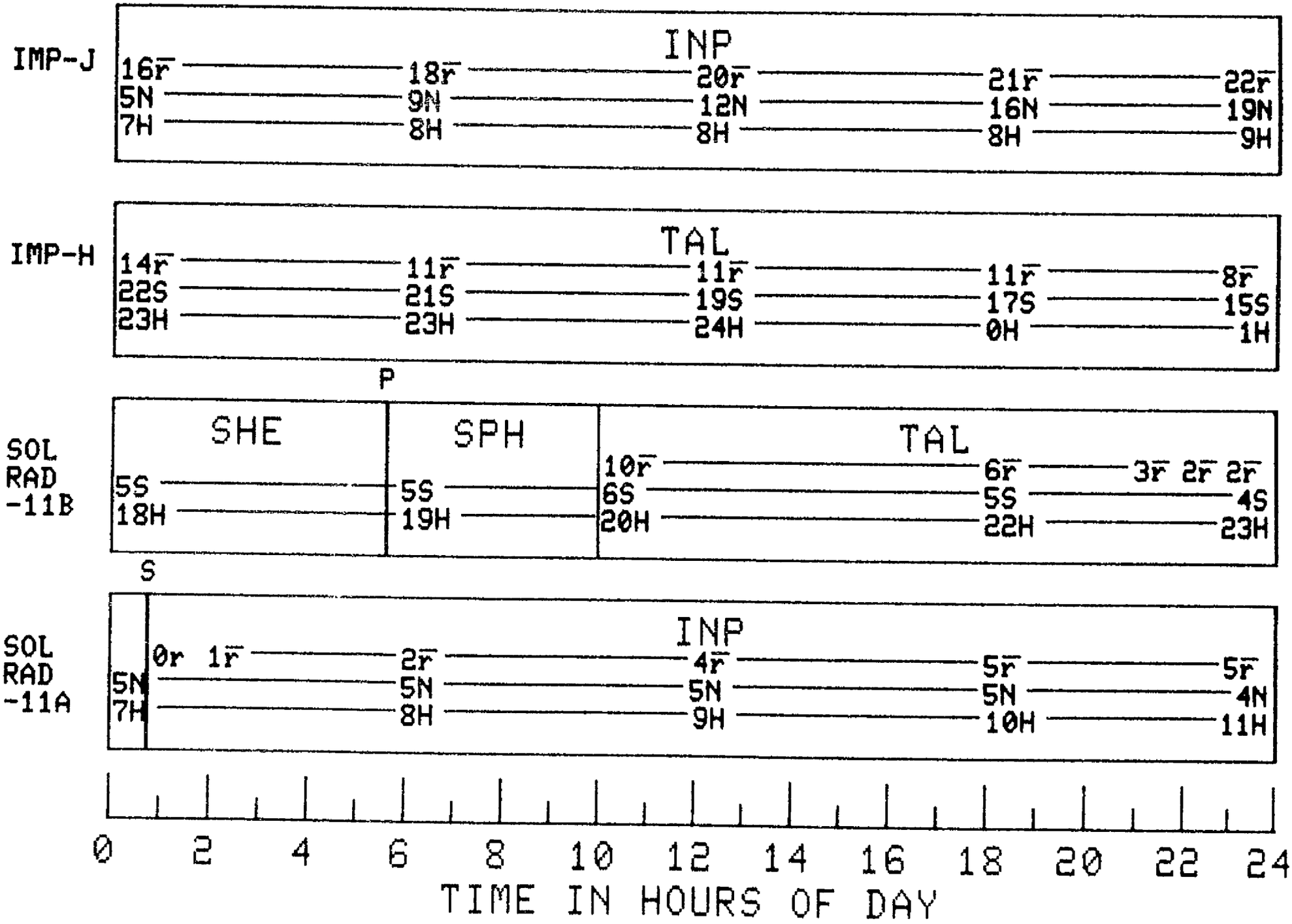
DAY 278 1977


VELA -6B
INP
0r 1r 1r 2r 2r 1r
9N 24N 38N 48N 52N
8H 8H 10H 11H 13H
P
VELA -6A
SPH
SHE
52S 41S 21S 6S
2H 4H 6H 7H
P
VELA -5B
TAL
SPH
SHE
13r 10r 9r
48S 53S 52S 39S 30S
23H 0H 2H 4H 5H
P
VELA -5A
SHE
48N 36N 22N 8N 7S
15H 17H 18H 18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

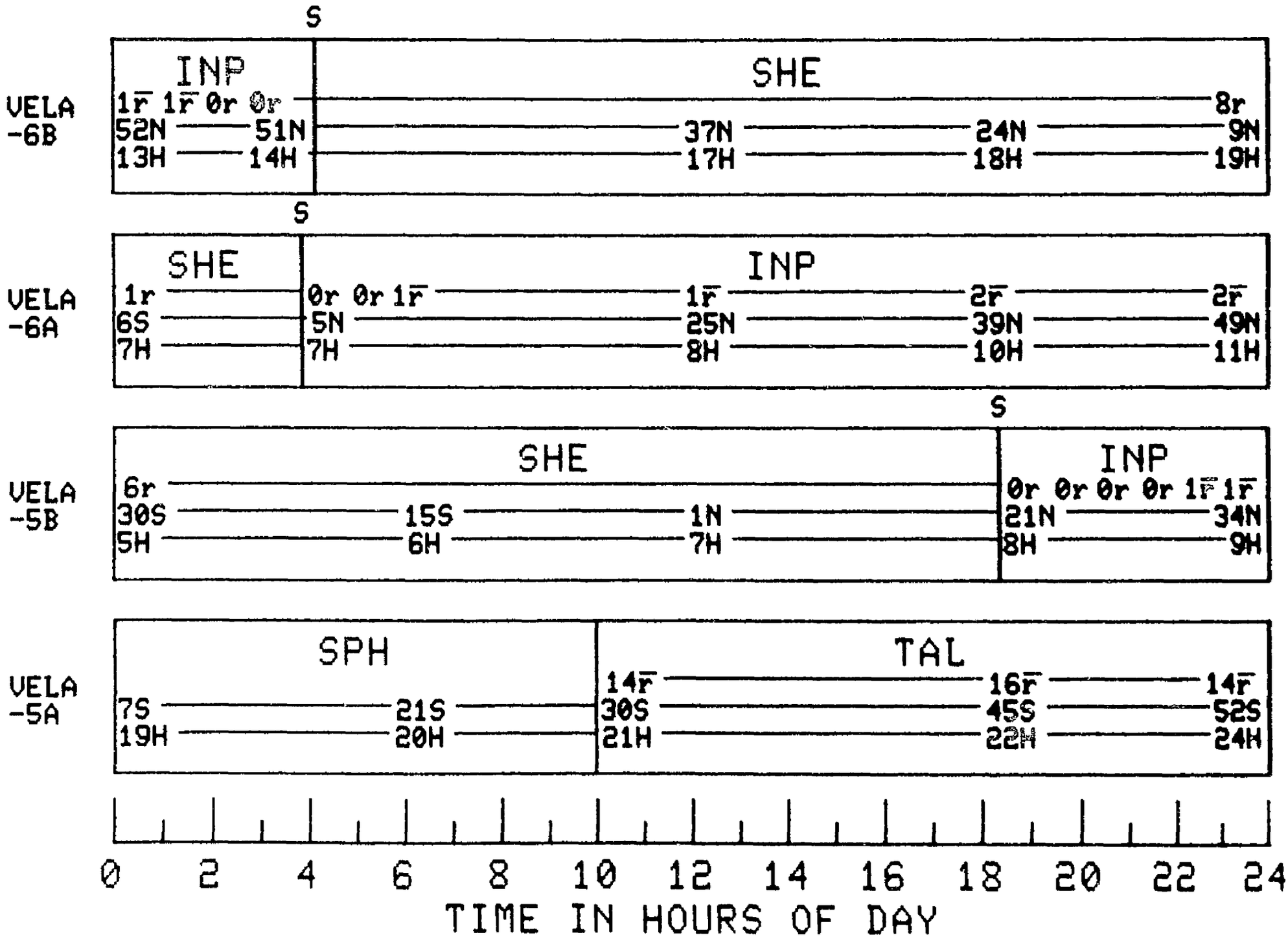
DAY 278 1977


P
S
SHE
INP
PROG
NOZ-5
60N 66N 72N
10H 10H 10H
0r 0r 1r 2r 4r 4r
73N 77N 81N 84N
10H 10H 10H 11H
P
C
SHE
SPH
HAWK
EYE-1
68N 64N 59N
17H 17H 17H
58N 62N 70N 64N
18H 19H 21H 3H
78S 14N 28N
11H 17H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

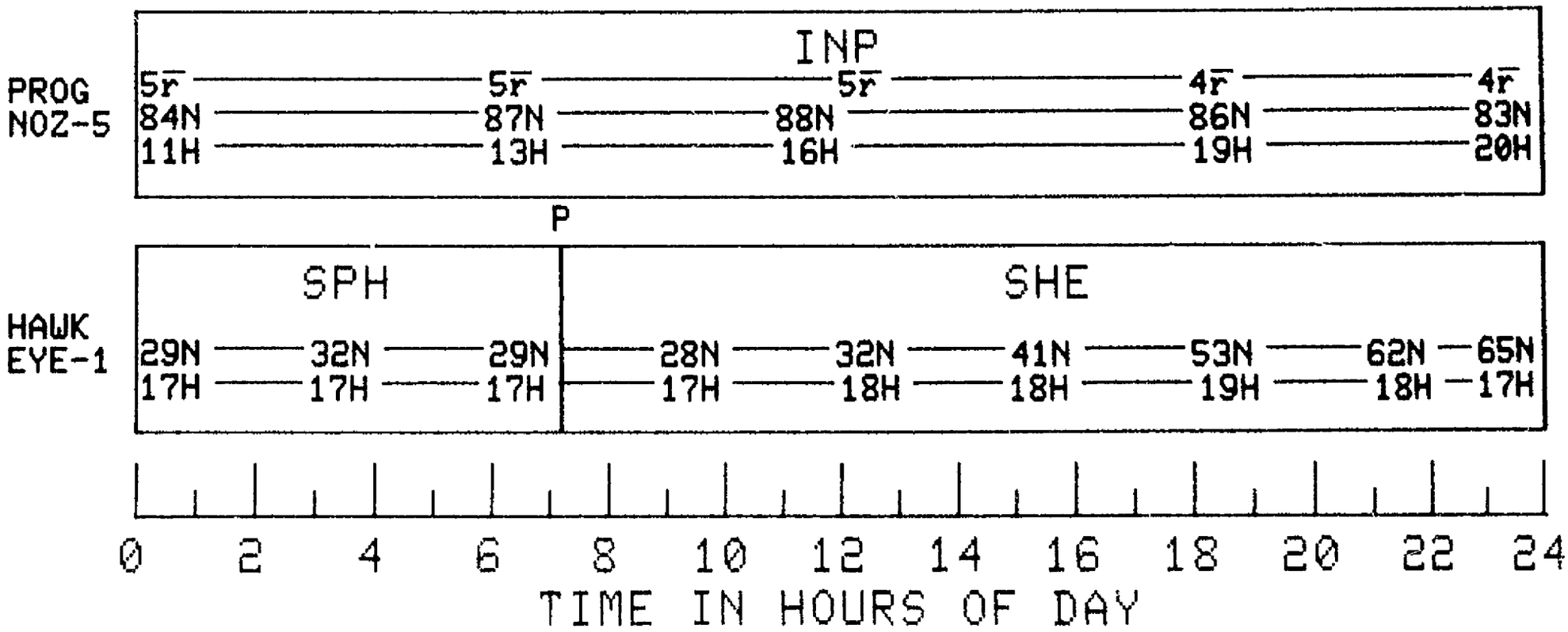
DAY 279 1977


IMP-J
INP
16r 18r 20r 21r 22r
5N 9N 12N 16N 19N
7H 8H 8H 8H 9H
IMP-H
TAL
14r 11r 11r 11r 8r
22S 21S 19S 17S 15S
23H 23H 24H 0H 1H
P
SOL RAD -11B
SHE
SPH
TAL
5S 5S 10r 6r 3r 2r 2r
18H 19H 6S 5S 4S
20H 22H 23H
S
SOL RAD -11A
INP
5N 0r 1r 2r 4r 5r 5r
7H 5N 5N 5N 4N
8H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

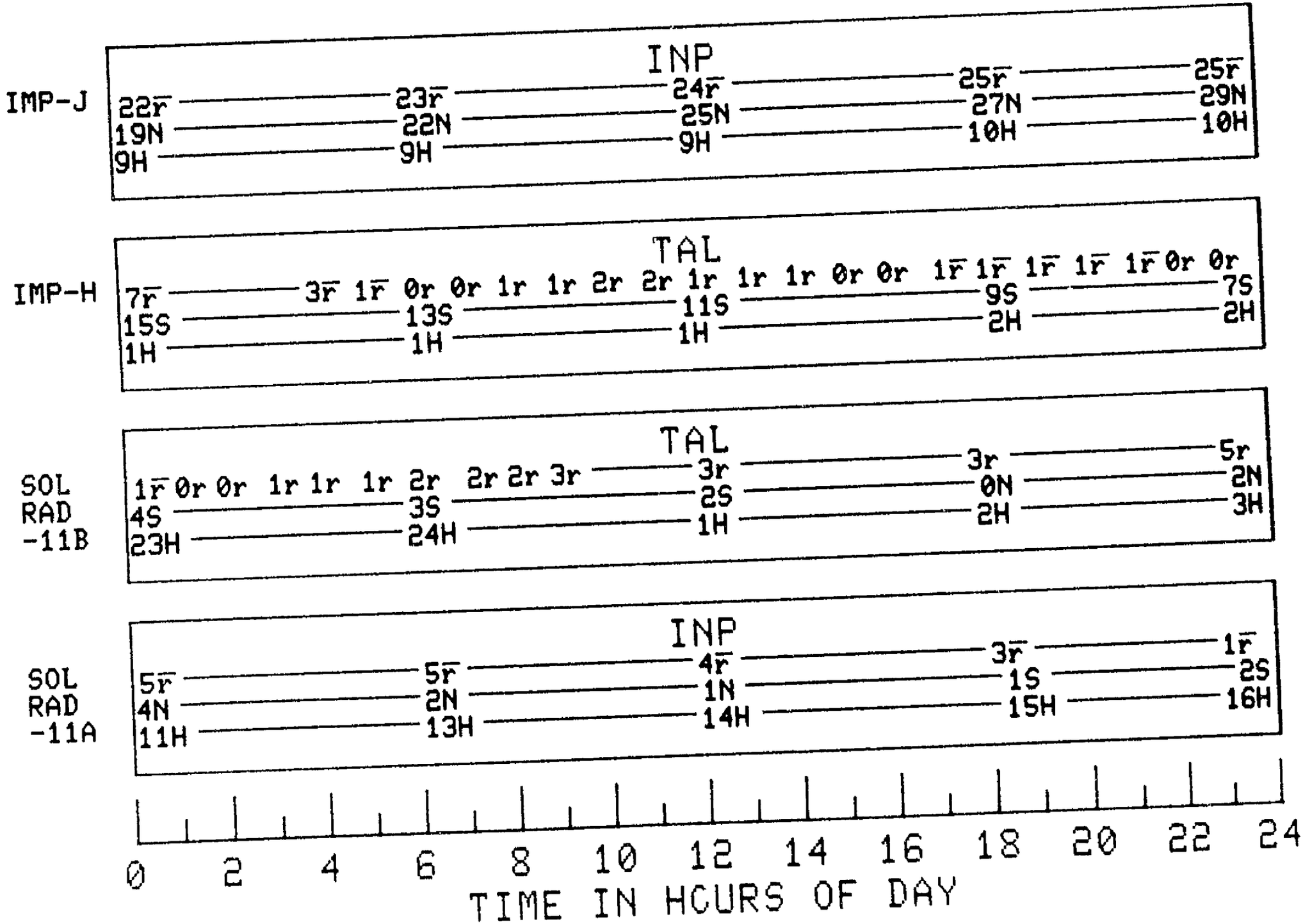
DAY 279 1977

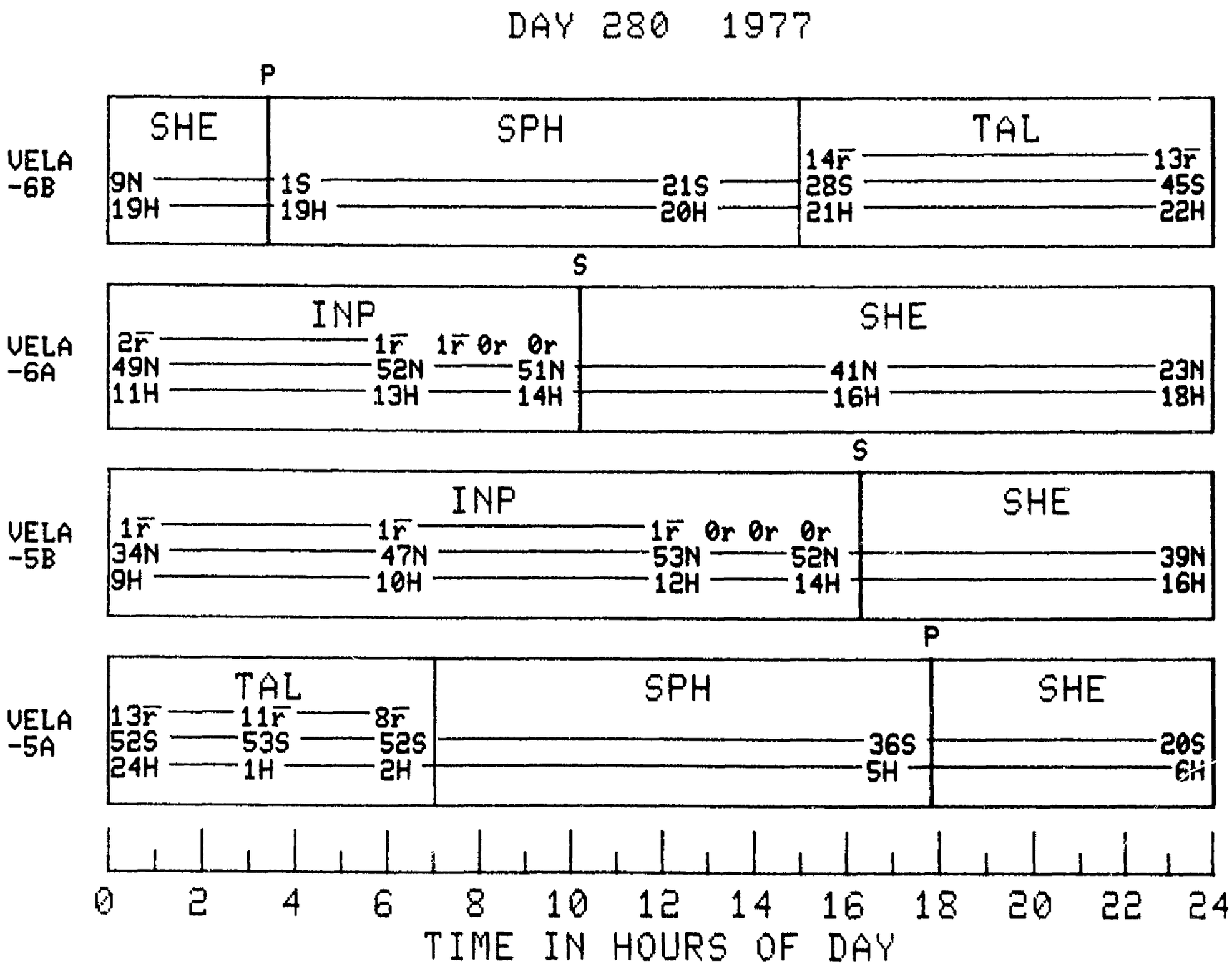

S
INP
SHE
VELA -6B
1r̄ 1r̄ 0r 0r
8r
52N
51N
37N
24N
9N
13H
14H
17H
18H
19H
S
SHE
INP
VELA -6A
1r
0r 0r 1r̄
1r̄
2r̄
2r̄
6S
5N
25N
39N
49N
7H
7H
8H
10H
11H
S
SHE
INP
VELA -5B
6r
0r 0r 0r 0r 1r̄ 1r̄
30S
15S
1N
21N
34N
5H
6H
7H
8H
9H
SPH
TAL
VELA -5A
14r̄
16r̄
14r̄
7S
21S
30S
45S
52S
19H
20H
21H
22H
24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 279 1977

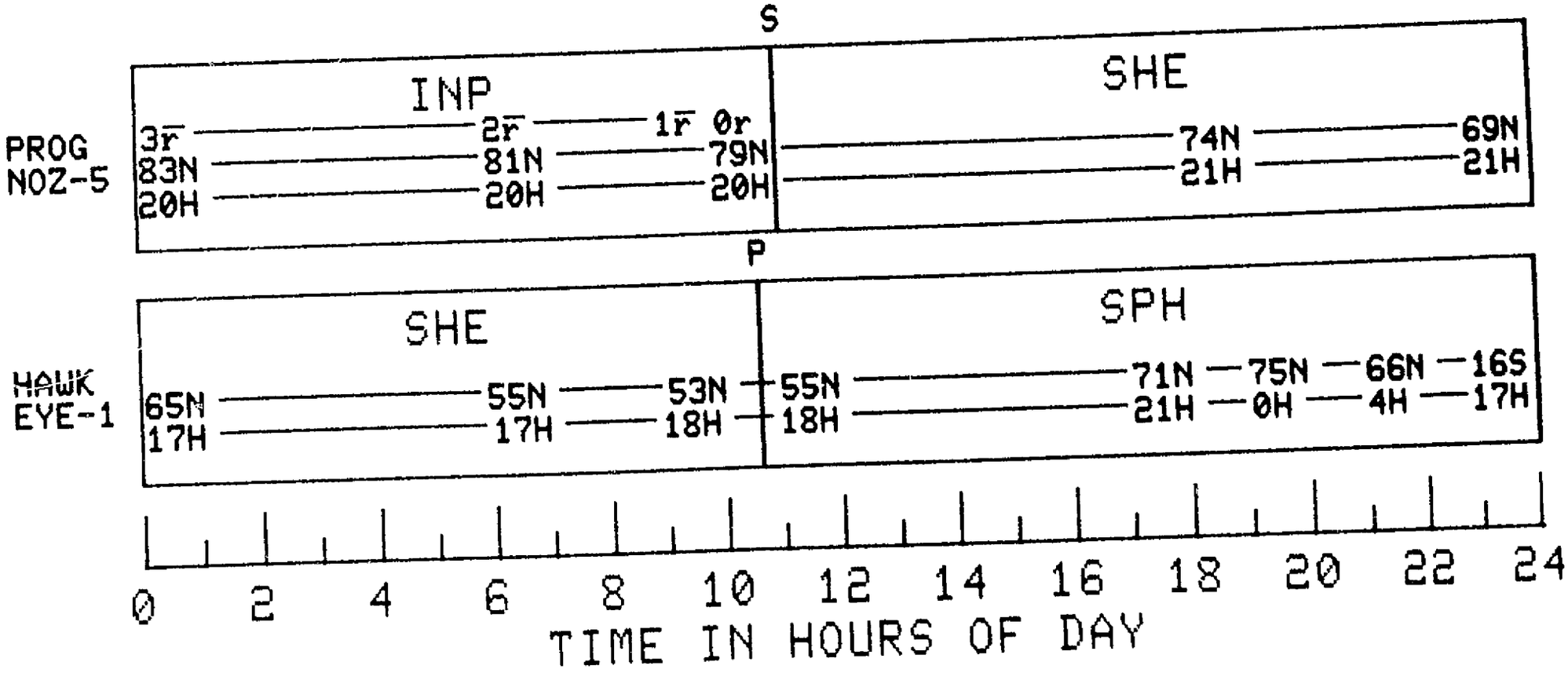

INP
PROG
NOZ-5
5r 5r 5r 4r 4r
84N 87N 88N 86N 83N
11H 13H 16H 19H 20H
P
SPH
SHE
HAWK
EYE-1
29N 32N 29N 28N 32N 41N 53N 62N 65N
17H 17H 17H 17H 18H 18H 19H 18H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 280 1977

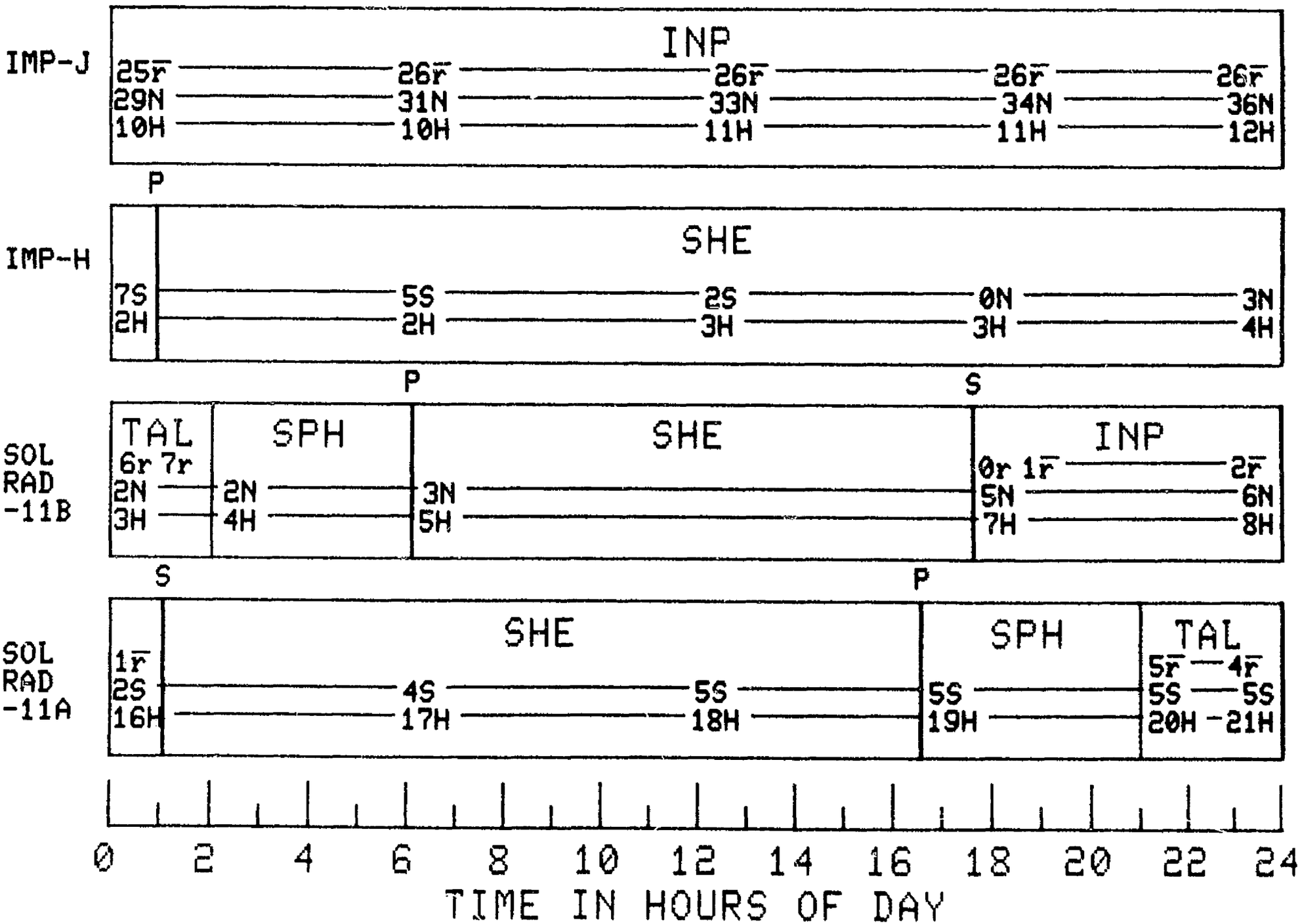

IMP-J
INP
22r 23r 24r 25r 25r
19N 22N 25N 27N 29N
9H 9H 9H 10H 10H
IMP-H
TAL
7r 3r 1r 0r 0r 1r 1r 2r 2r 1r 1r 1r 0r 0r 1r 1r 1r 1r 1r 0r 0r
15S 13S 11S 9S 7S
1H 1H 1H 2H 2H
SOL RAD -11B
TAL
1r 0r 0r 1r 1r 1r 2r 2r 2r 3r 3r 3r 5r
4S 3S 2S 0N 2N
23H 24H 1H 2H 3H
SOL RAD -11A
INP
5r 5r 4r 3r 1r
4N 2N 1N 1S 2S
11H 13H 14H 15H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 280 1977
VELA -6B
P
SHE
SPH
TAL
9N 19H
1S 19H
21S 20H
14r 28S 21H
13r 45S 22H
VELA -6A
S
INP
SHE
2r 49N 11H
1r 52N 13H
1r 0r 51N 14H
41N 16H
23N 18H
VELA -5B
S
INP
SHE
1r 34N 9H
1r 47N 10H
1r 0r 0r 53N 12H
52N 14H
39N 16H
VELA -5A
P
TAL
SPH
SHE
13r 52S 24H
11r 53S 1H
8r 52S 2H
36S 5H
20S 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

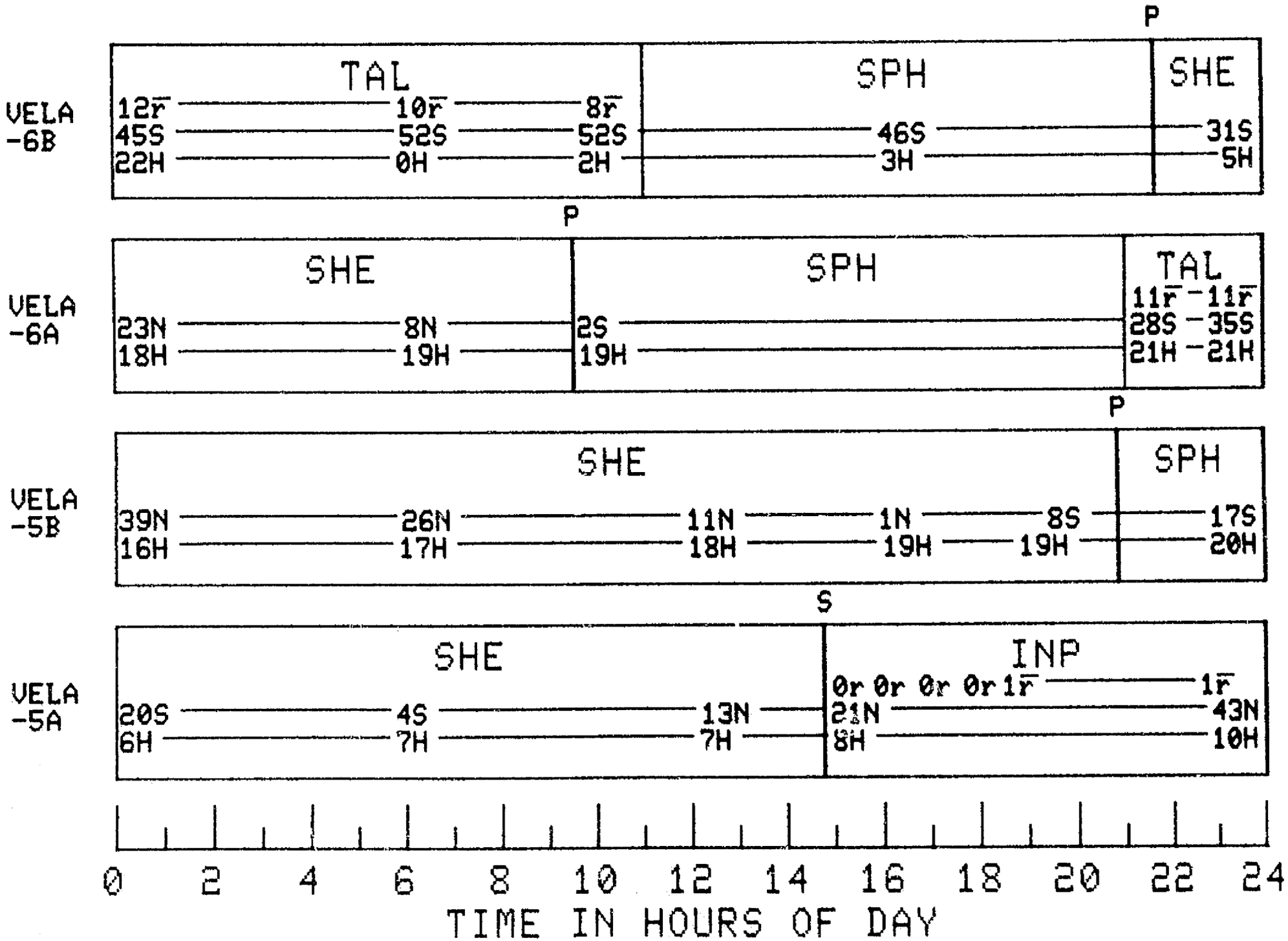
DAY 280 1977


S
INP
SHE
PROG
NOZ-5
3r̄
2r̄
1r̄
0r
83N
81N
79N
74N
69N
20H
20H
20H
21H
21H
P
SHE
SPH
HAWK
EYE-1
65N
55N
53N
55N
71N
75N
66N
16S
17H
17H
18H
18H
21H
0H
4H
17H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

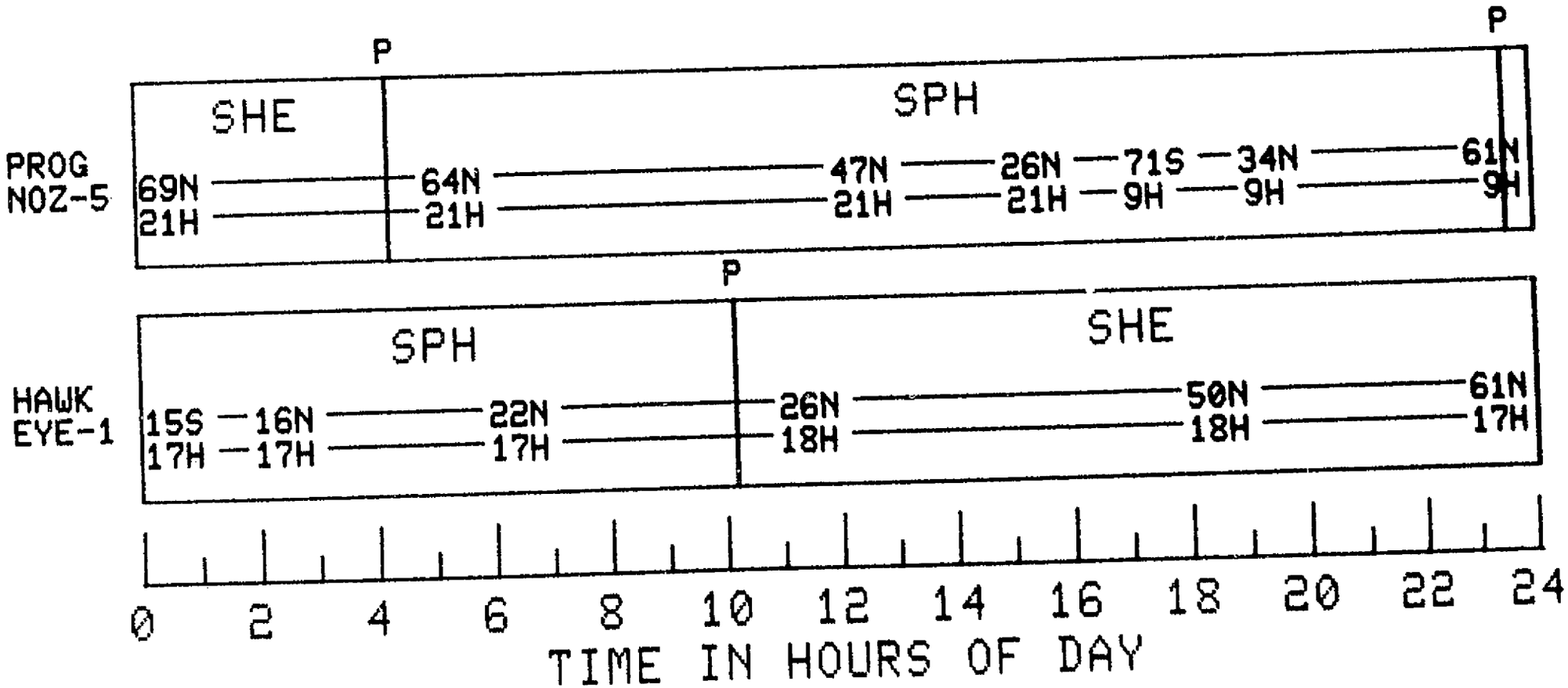
DAY 281 1977


IMP-J
INP
25r̄ 29N 10H
26r̄ 31N 10H
26r̄ 33N 11H
26r̄ 34N 11H
26r̄ 36N 12H
P
IMP-H
SHE
7S 2H
5S 2H
2S 3H
0N 3H
3N 4H
P
S
SOL RAD -11B
TAL
6r 7r
2N 3H
SPH
2N 4H
SHE
3N 5H
INP
0r 1r̄
5N 7H
2r̄ 6N 8H
S
P
SOL RAD -11A
SHE
1r̄ 2S 16H
4S 17H
5S 18H
SPH
5S 19H
TAL
5r̄ 5S 20H
4r̄ 5S 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

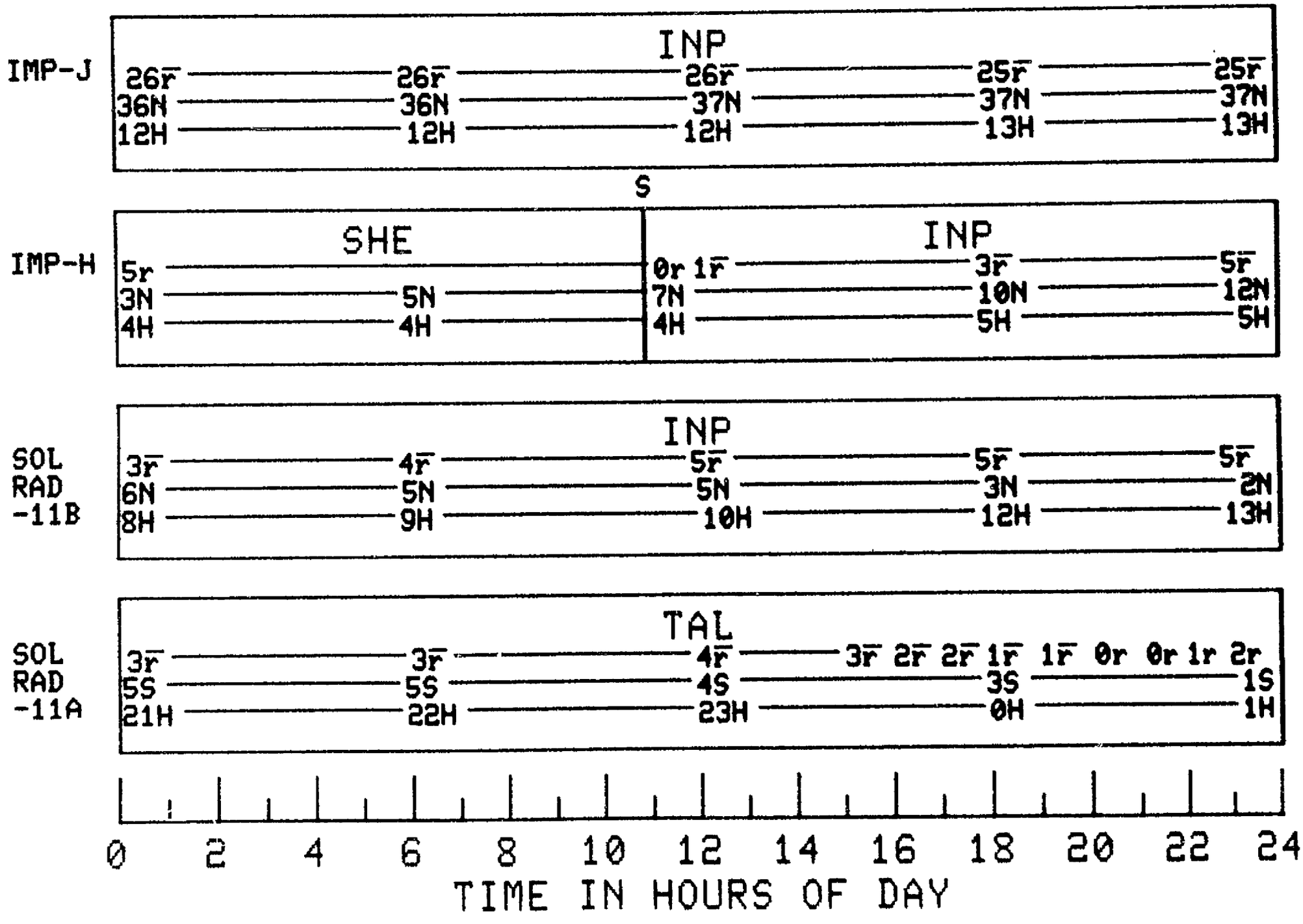
DAY 281 1977


VELA -6B
TAL
12r̄ 10r̄ 8r̄
45S 52S 52S
22H 0H 2H
SPH
46S
3H
P
SHE
31S
5H
VELA -6A
SHE
23N 8N
18H 19H
P
SPH
2S
19H
TAL
11r̄ 11r̄
28S 35S
21H 21H
VELA -5B
SHE
39N 26N 11N 1N 8S
16H 17H 18H 19H 19H
P
SPH
17S
20H
VELA -5A
SHE
20S 4S 13N
6H 7H 7H
S
INP
0r 0r 0r 0r 1r̄ 1r̄
21N 43N
8H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

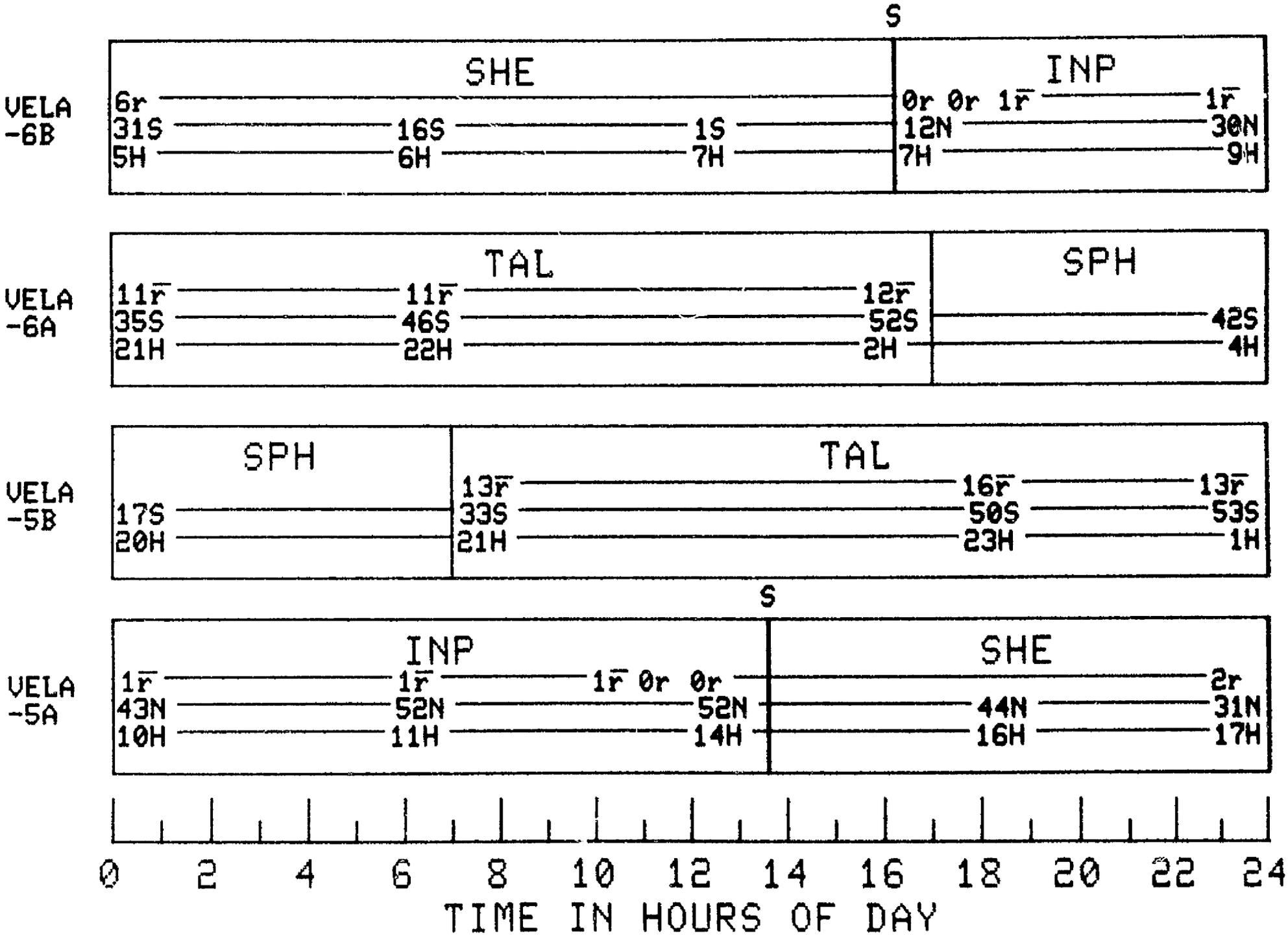
DAY 281 1977


P
P
SHE
SPH
PROG
NOZ-5
69N
21H
64N
21H
47N
21H
26N
21H
71S
9H
34N
9H
61N
9H
P
SPH
SHE
HAWK
EYE-1
15S
17H
16N
17H
22N
17H
26N
18H
50N
18H
61N
17H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

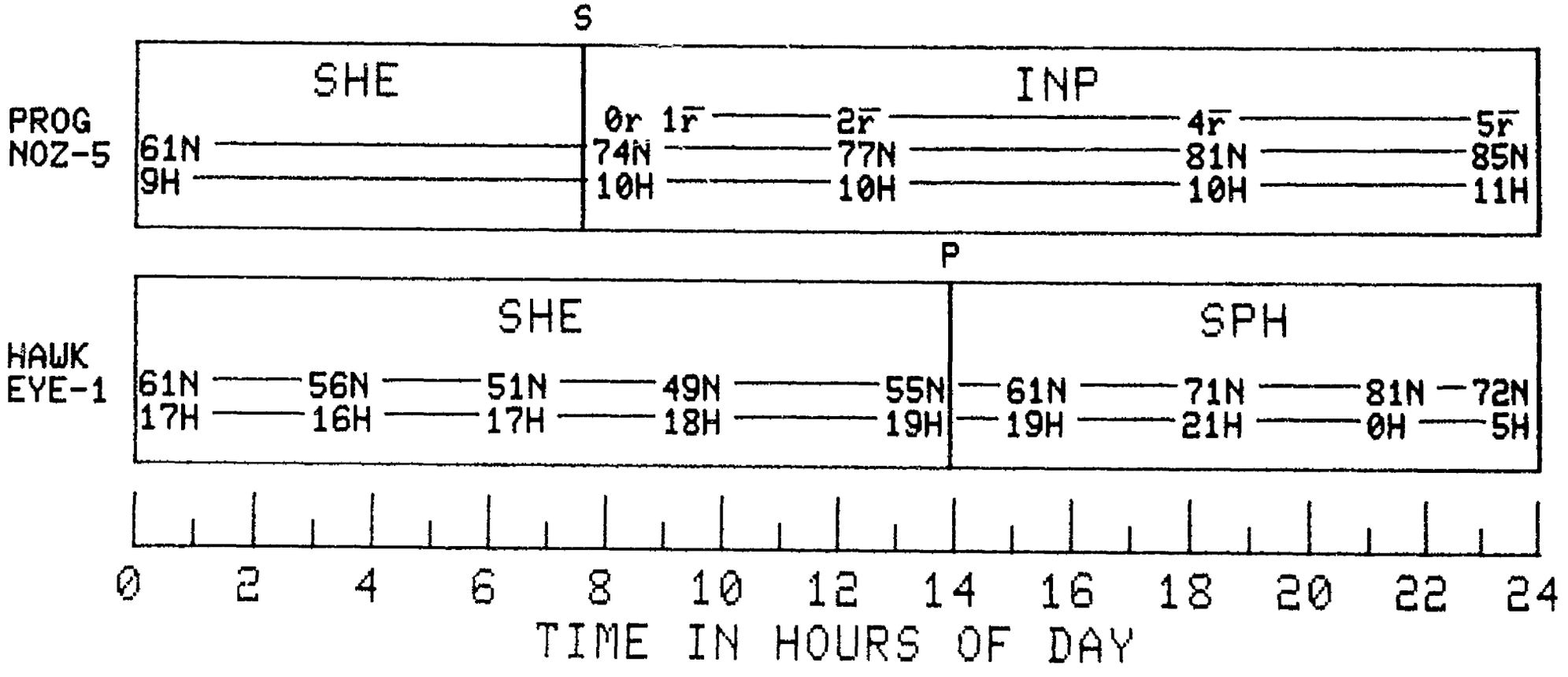
DAY 282 1977


IMP-J
INP
26r̄ 26r̄ 26r̄ 25r̄ 25r̄
36N 36N 37N 37N 37N
12H 12H 12H 13H 13H
S
IMP-H
SHE
INP
5r 0r 1r̄ 3r̄ 5r̄
3N 5N 7N 10N 12N
4H 4H 4H 5H 5H
SOL RAD -11B
INP
3r̄ 4r̄ 5r̄ 5r̄ 5r̄
6N 5N 5N 3N 2N
8H 9H 10H 12H 13H
SOL RAD -11A
TAL
3r̄ 3r̄ 4r̄ 3r̄ 2r̄ 2r̄ 1r̄ 1r̄ 0r 0r 1r 2r
5S 5S 4S 3S 1S
21H 22H 23H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

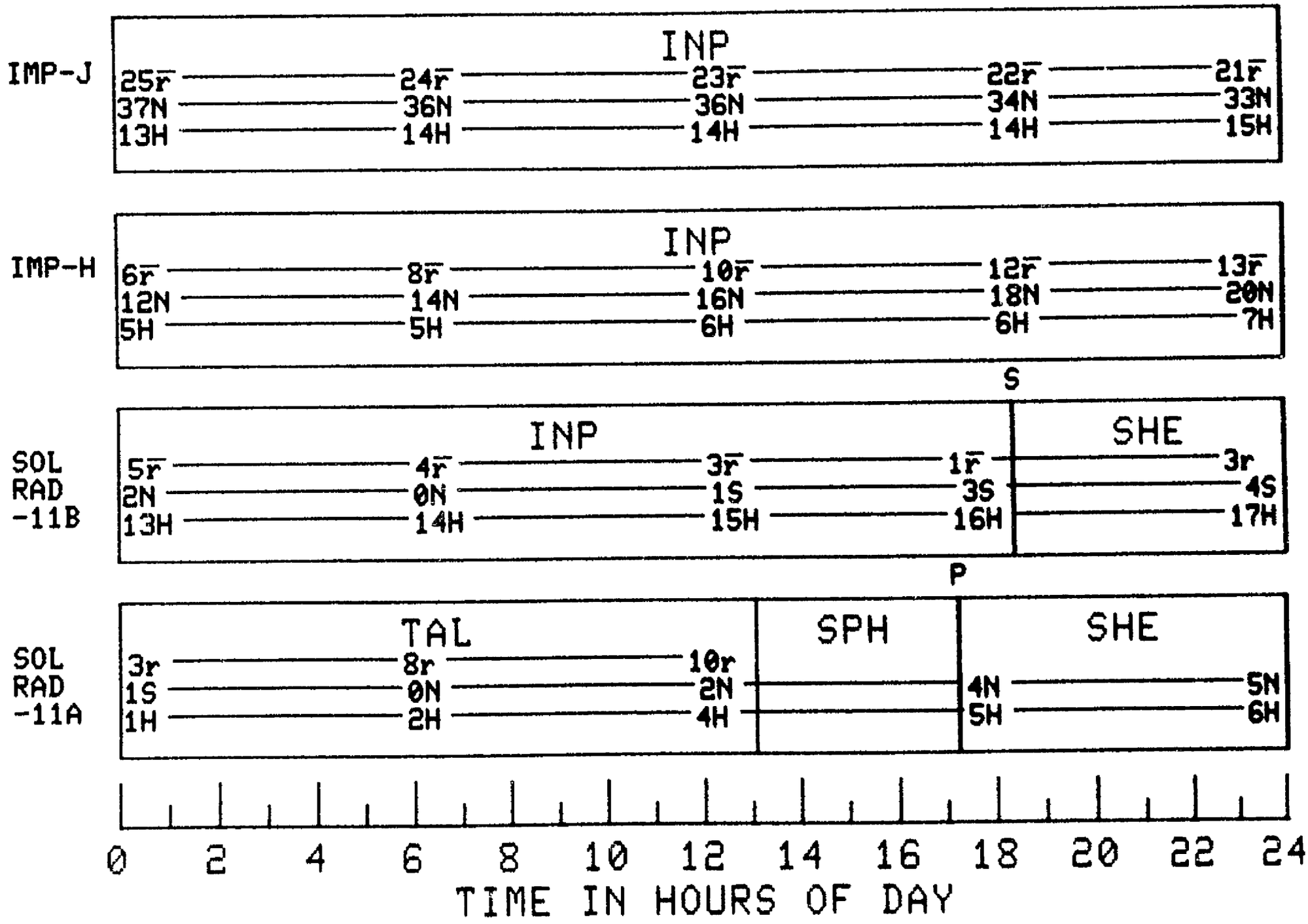
DAY 282 1977


S
SHE
INP
VELA -6B
6r
31S 16S 1S
5H 6H 7H
0r 0r 1r̄ 1r̄
12N 30N
7H 9H
TAL
SPH
VELA -6A
11r̄ 11r̄ 12r̄
35S 46S 52S 42S
21H 22H 2H 4H
SPH
TAL
VELA -5B
17S
20H
13r̄ 16r̄ 13r̄
33S 50S 53S
21H 23H 1H
S
INP
SHE
VELA -5A
1r̄ 1r̄ 1r̄ 0r 0r 2r
43N 52N 52N 44N 31N
10H 11H 14H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

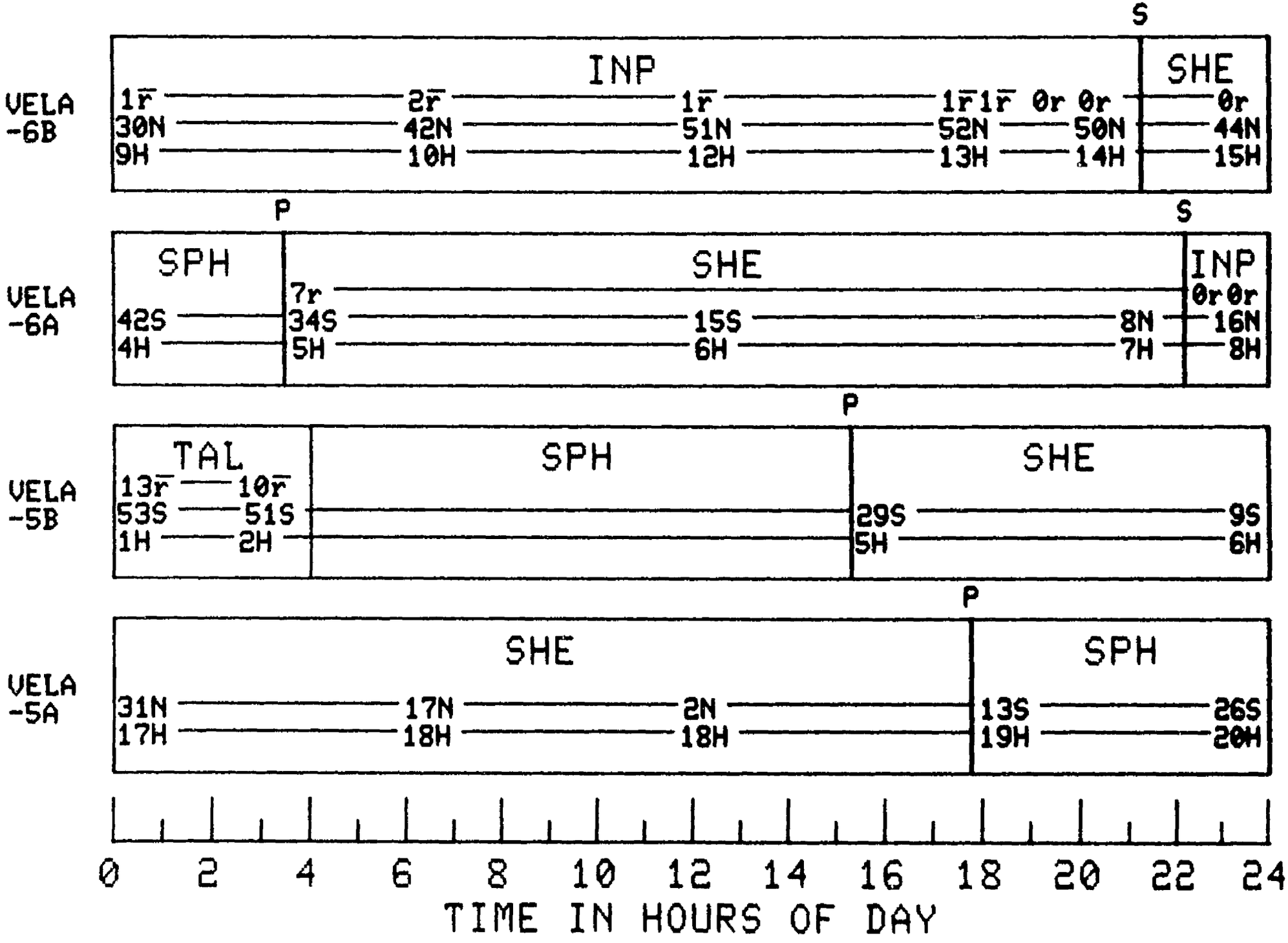
DAY 282 1977


S
SHE
INP
PROG
NOZ-5
61N
9H
0r 1r
74N
10H
2r
77N
10H
4r
81N
10H
5r
85N
11H
P
SHE
SPH
HAWK
EYE-1
61N
17H
56N
16H
51N
17H
49N
18H
55N
19H
61N
19H
71N
21H
81N
0H
72N
5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

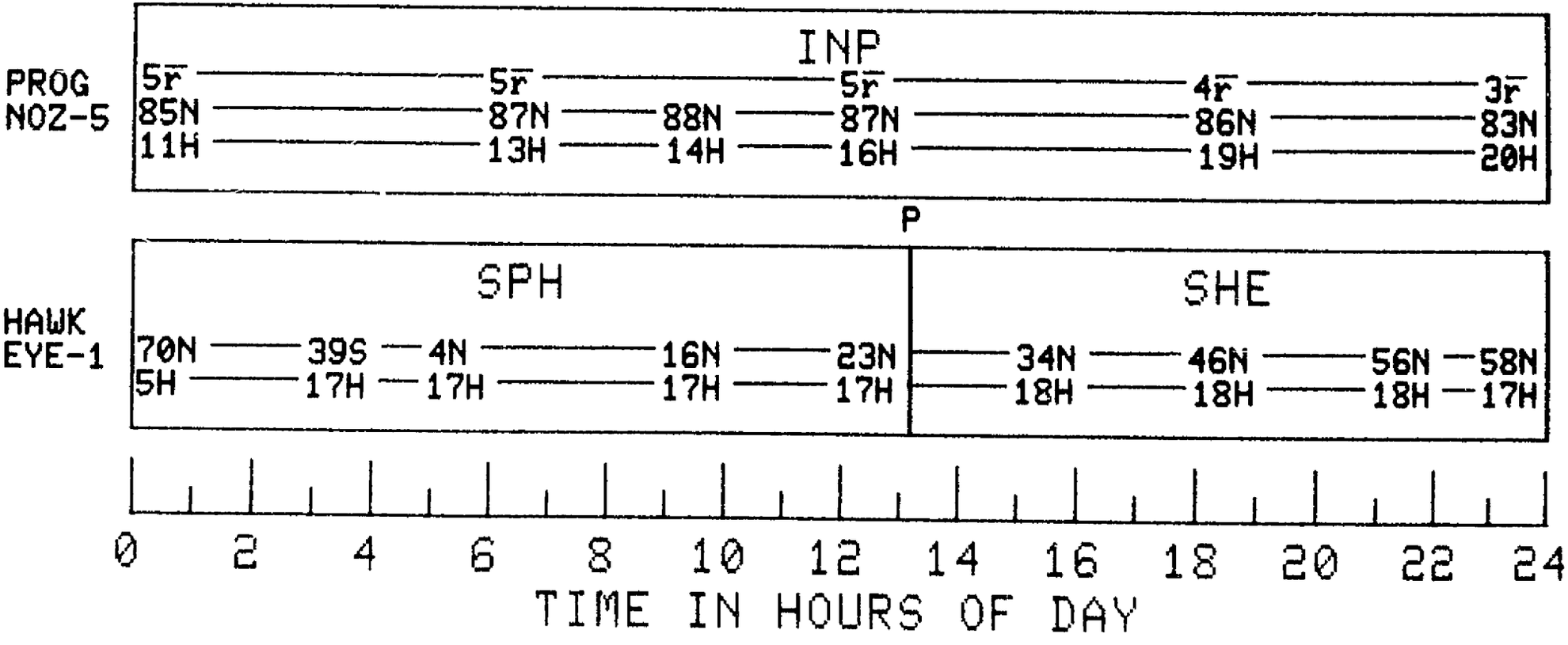
DAY 283 1977


IMP-J
INP
25r 24r 23r 22r 21r
37N 36N 36N 34N 33N
13H 14H 14H 14H 15H
IMP-H
INP
6r 8r 10r 12r 13r
12N 14N 16N 18N 20N
5H 5H 6H 6H 7H
S
SOL RAD -11B
INP
SHE
5r 4r 3r 1r 3r
2N 0N 1S 3S 4S
13H 14H 15H 16H 17H
P
SOL RAD -11A
TAL
SPH
SHE
3r 8r 10r
1S 0N 2N 4N 5N
1H 2H 4H 5H 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

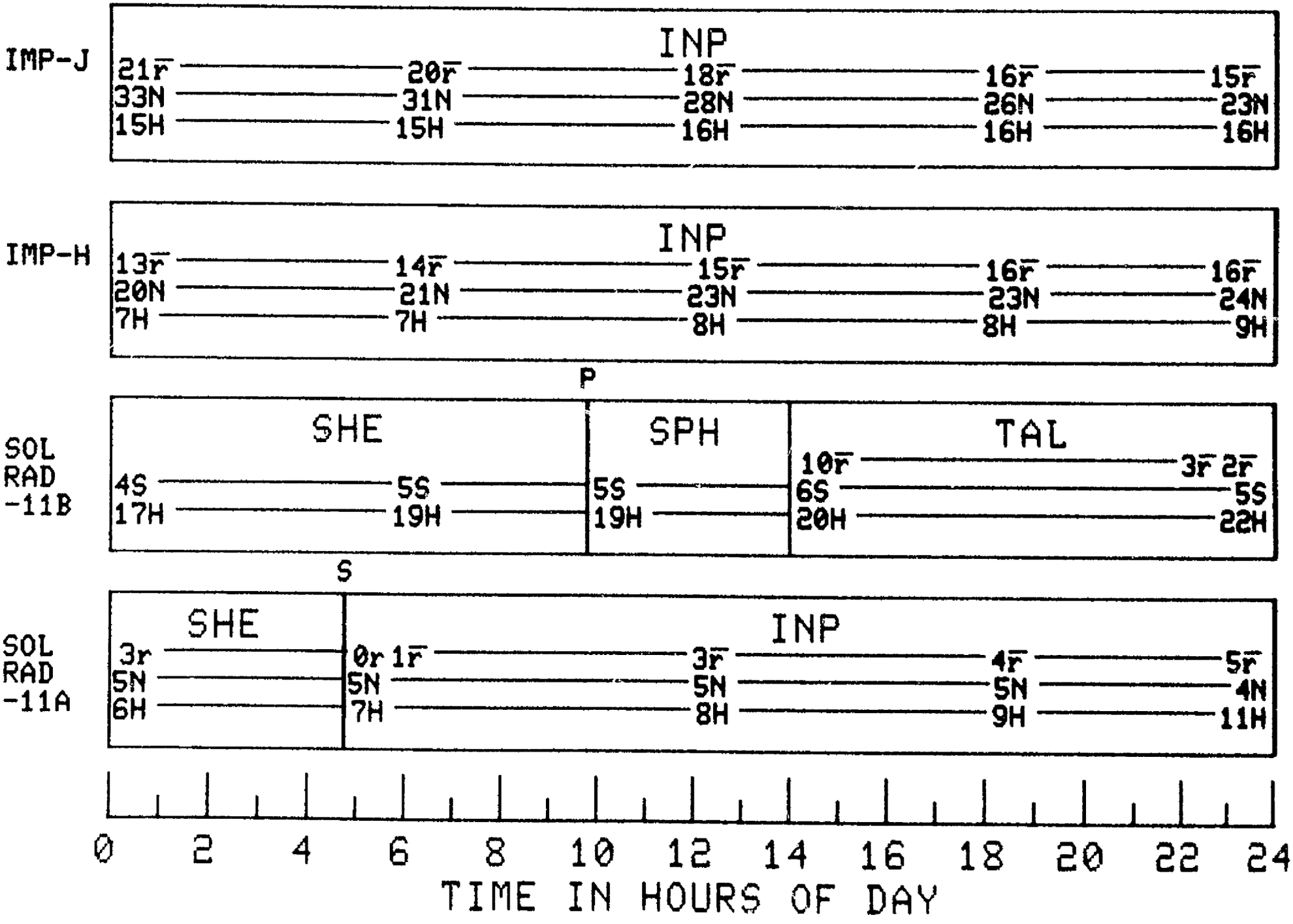
DAY 283 1977


S
INP
SHE
VELA -6B
1r̄ 2r̄ 1r̄ 1r̄1r̄ 0r 0r 0r
30N 42N 51N 52N 50N 44N
9H 10H 12H 13H 14H 15H
P
S
SPH
SHE
INP
VELA -6A
7r 0r 0r
42S 34S 15S 8N 16N
4H 5H 6H 7H 8H
P
TAL
SPH
SHE
VELA -5B
13r̄ 10r̄
53S 51S 29S 9S
1H 2H 5H 6H
P
SHE
SPH
VELA -5A
31N 17N 2N 13S 26S
17H 18H 18H 19H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

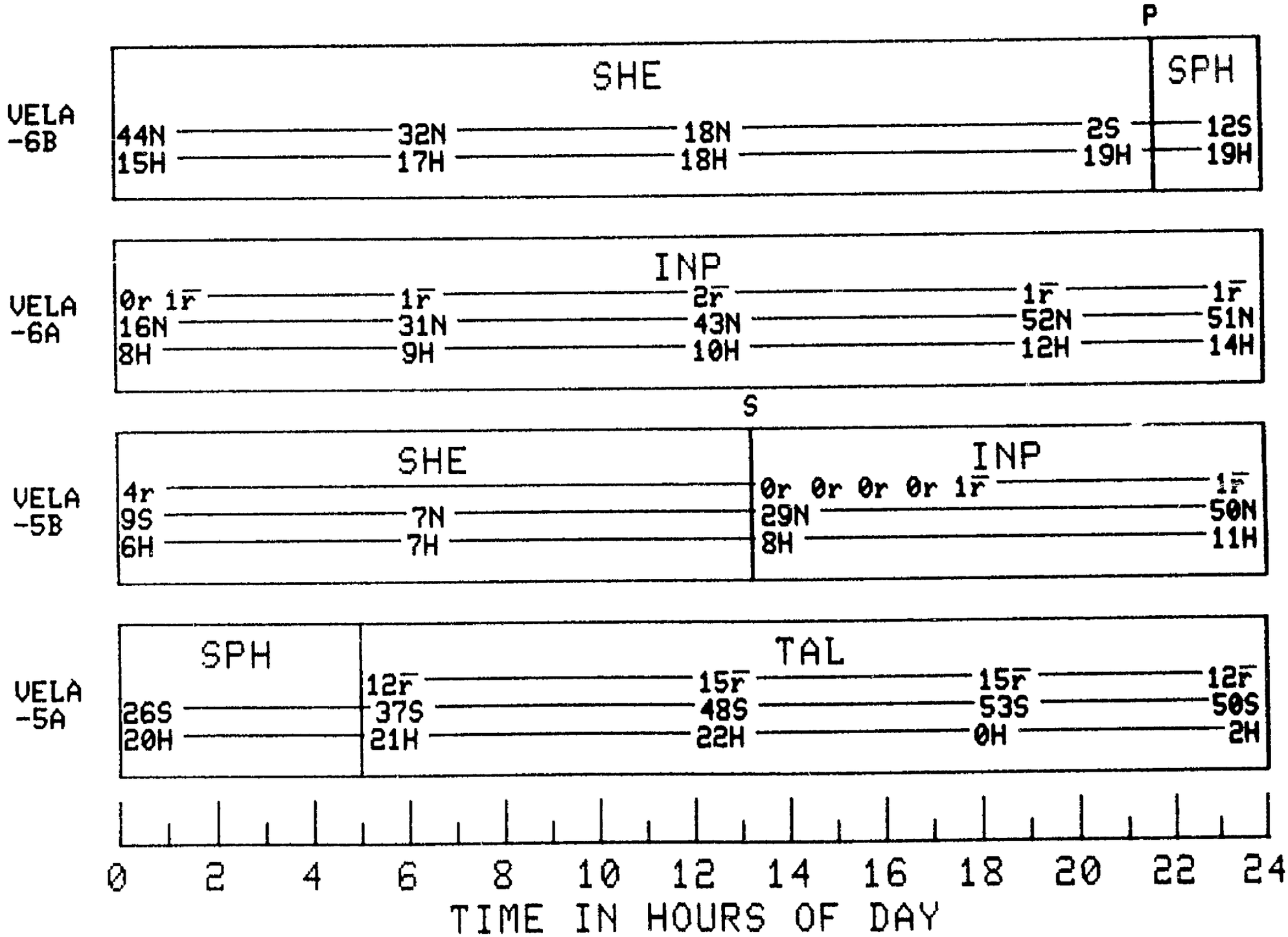
DAY 283 1977


INP
PROG
NOZ-5
5r
85N
11H
5r
87N
13H
88N
14H
5r
87N
16H
4r
86N
19H
3r
83N
20H
P
SPH
SHE
HAWK
EYE-1
70N
5H
39S
17H
4N
17H
16N
17H
23N
17H
34N
18H
46N
18H
56N
18H
58N
17H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

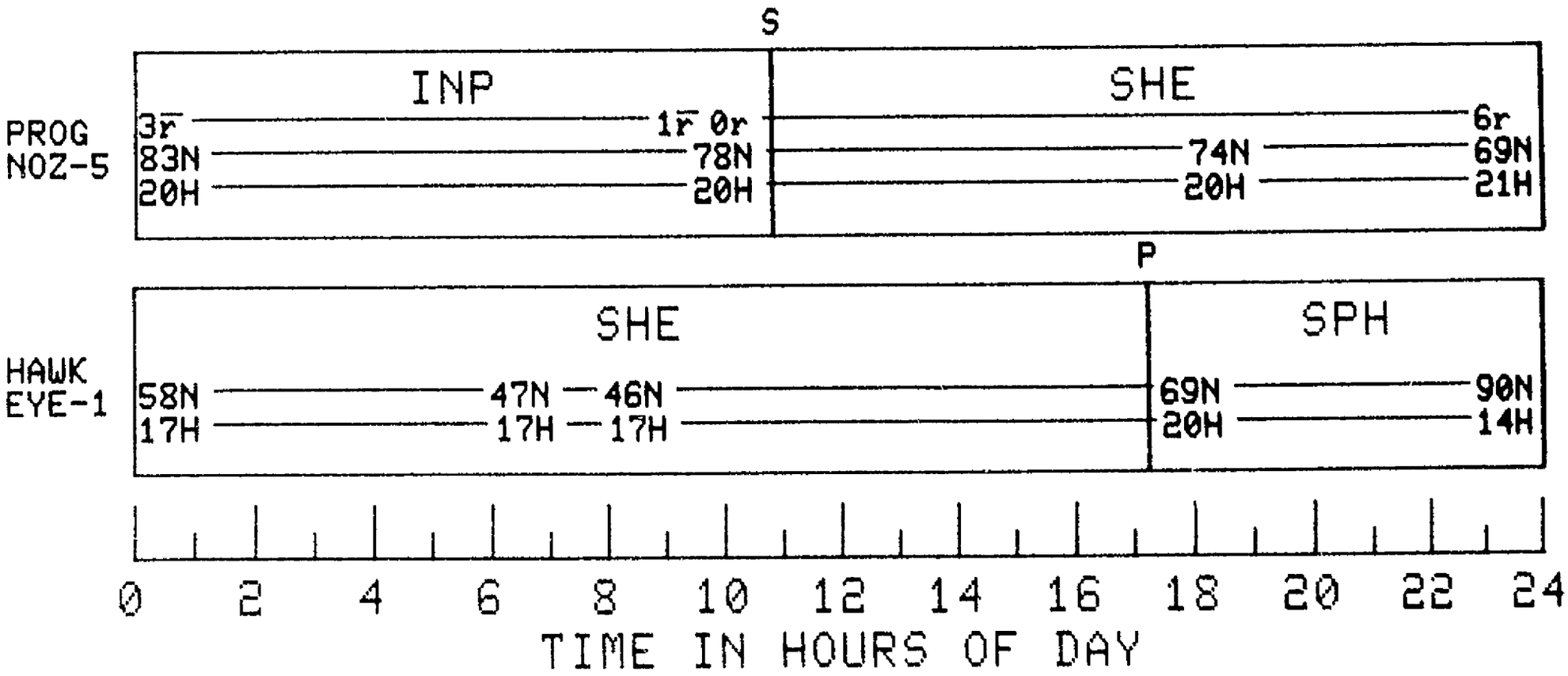
DAY 284 1977


IMP-J
INP
21r 20r 18r 16r 15r
33N 31N 28N 26N 23N
15H 15H 16H 16H 16H
IMP-H
INP
13r 14r 15r 16r 16r
20N 21N 23N 23N 24N
7H 7H 8H 8H 9H
P
SOL RAD -11B
SHE
SPH
TAL
4S 5S 5S 10r 3r 2r
17H 19H 19H 6S 5S
20H 22H
S
SOL RAD -11A
SHE
INP
3r 0r 1r 3r 4r 5r
5N 5N 5N 5N 4N
6H 7H 8H 9H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

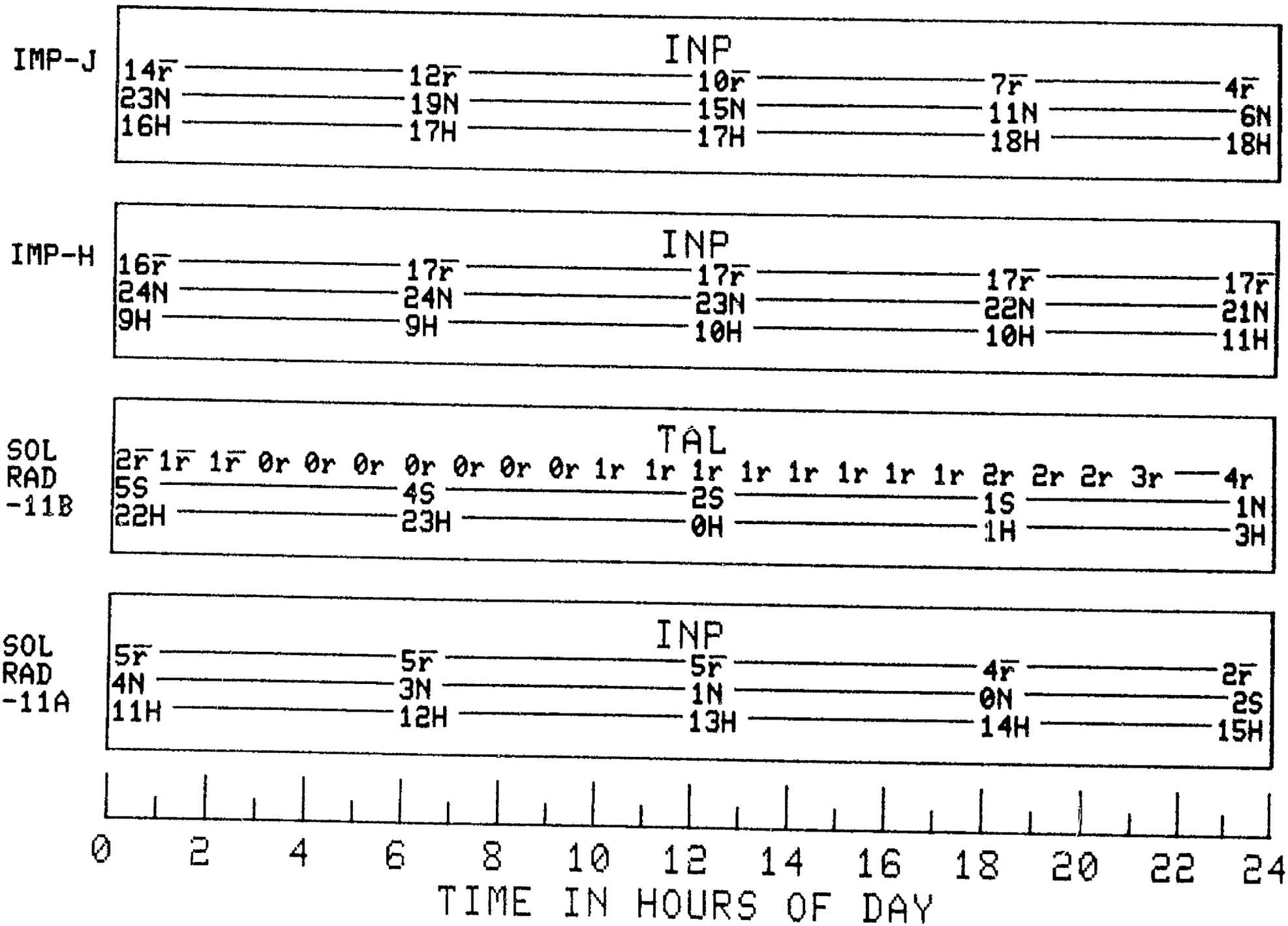
DAY 284 1977


P
SHE
SPH
VELA -6B
44N 32N 18N 2S 12S
15H 17H 18H 19H 19H
INP
VELA -6A
0r 1r 1r 2r 1r 1r
16N 31N 43N 52N 51N
8H 9H 10H 12H 14H
S
SHE
INP
VELA -5B
4r 0r 0r 0r 0r 1r 1r
9S 7N 29N 50N
6H 7H 8H 11H
SPH
TAL
VELA -5A
12r 15r 15r 12r
26S 37S 48S 53S 50S
20H 21H 22H 0H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

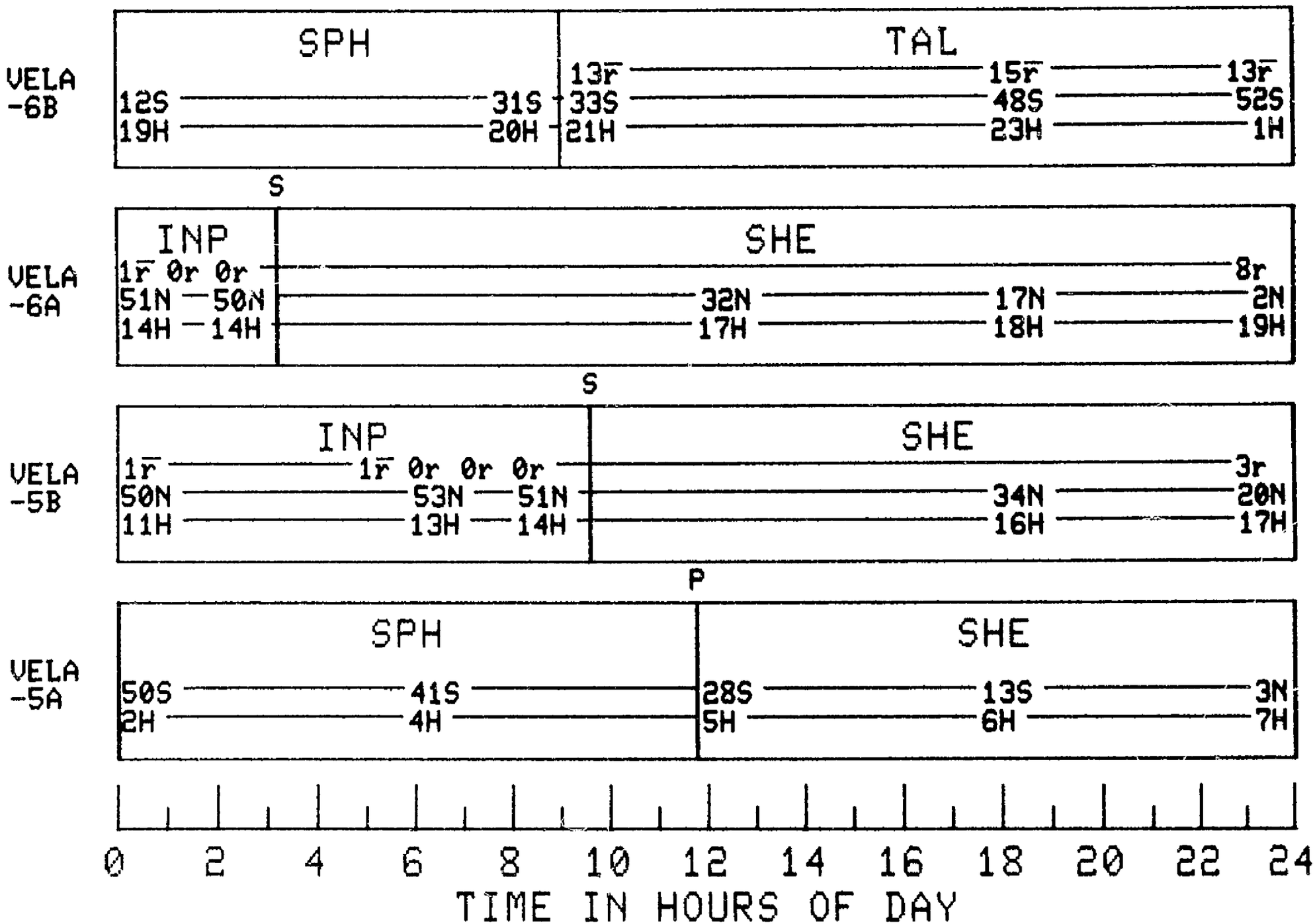
DAY 284 1977


S
INP
SHE
PROG
NOZ-5
3r
1r 0r
6r
83N
78N
74N
69N
20H
20H
20H
21H
P
SHE
SPH
HAWK
EYE-1
58N
47N
46N
69N
90N
17H
17H
17H
20H
14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

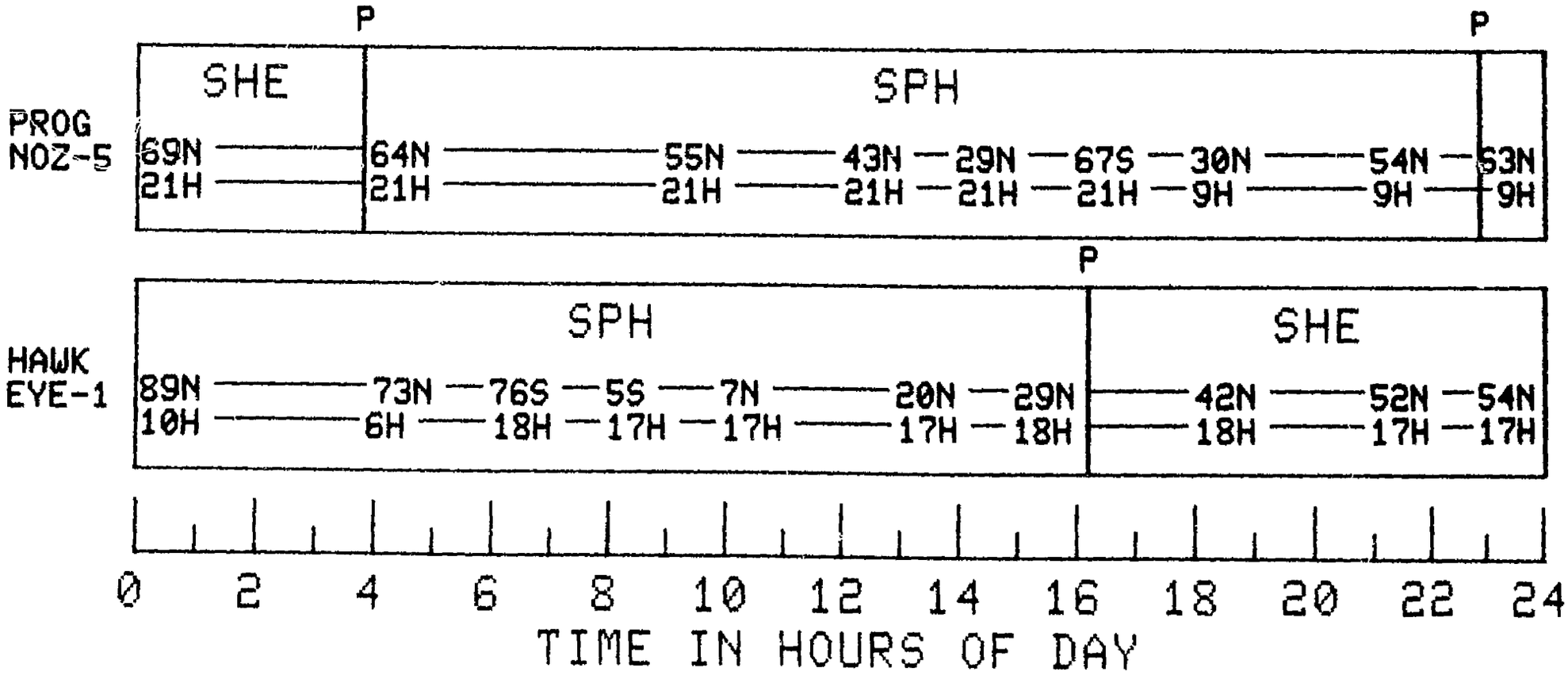
DAY 285 1977


IMP-J
INP
14r̄ 12r̄ 10r̄ 7r̄ 4r̄
23N 19N 15N 11N 6N
16H 17H 17H 18H 18H
IMP-H
INP
16r̄ 17r̄ 17r̄ 17r̄ 17r̄
24N 24N 23N 22N 21N
9H 9H 10H 10H 11H
SOL RAD -11B
TAL
2r̄ 1r̄ 1r̄ 0r 0r 0r 0r 0r 0r 0r 1r 1r 1r 1r 1r 1r 1r 1r 2r 2r 2r 3r 4r
5S 4S 2S 1S 1N
22H 23H 0H 1H 3H
SOL RAD -11A
INP
5r̄ 5r̄ 5r̄ 4r̄ 2r̄
4N 3N 1N 0N 2S
11H 12H 13H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

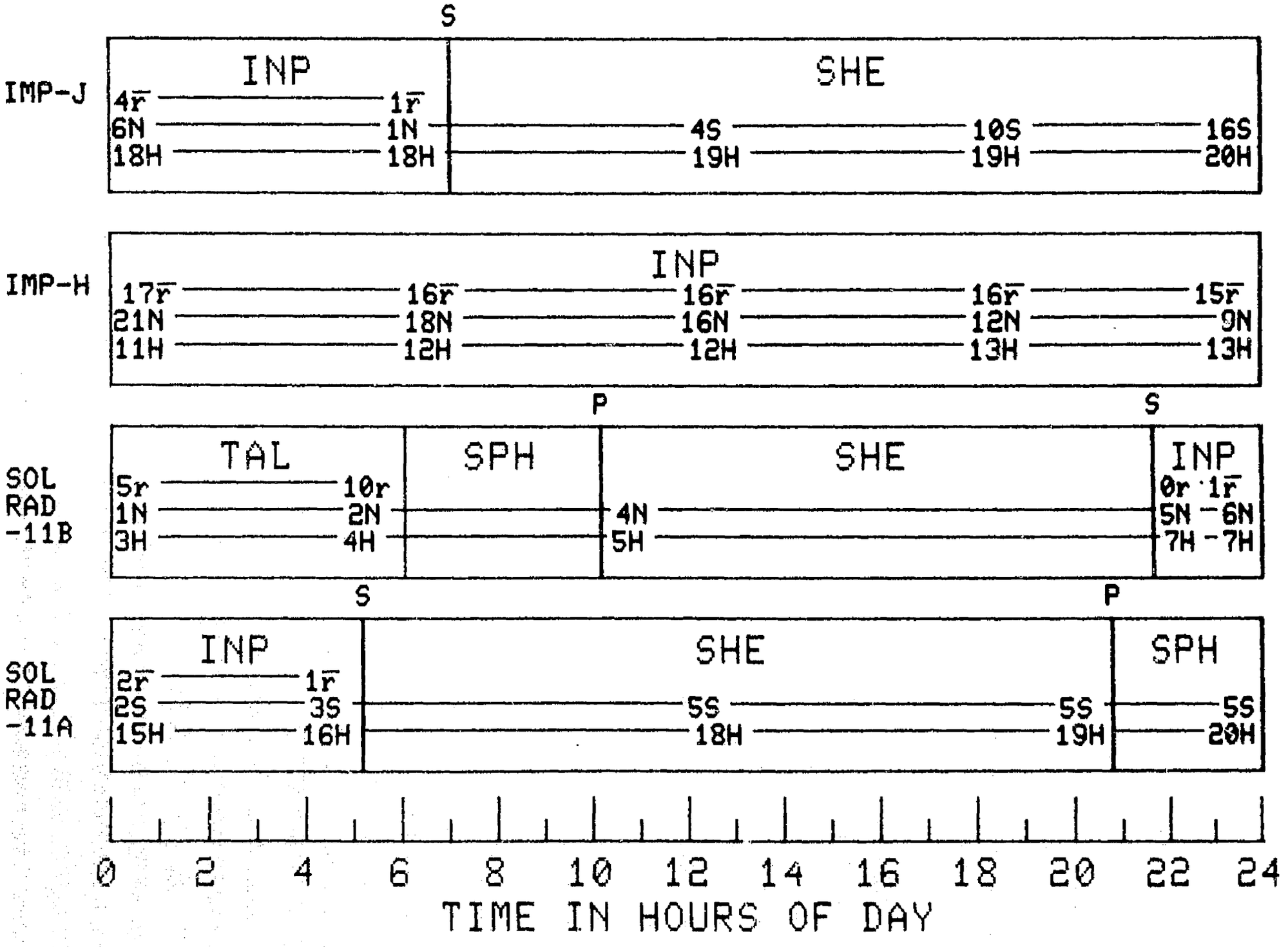
DAY 285 1977

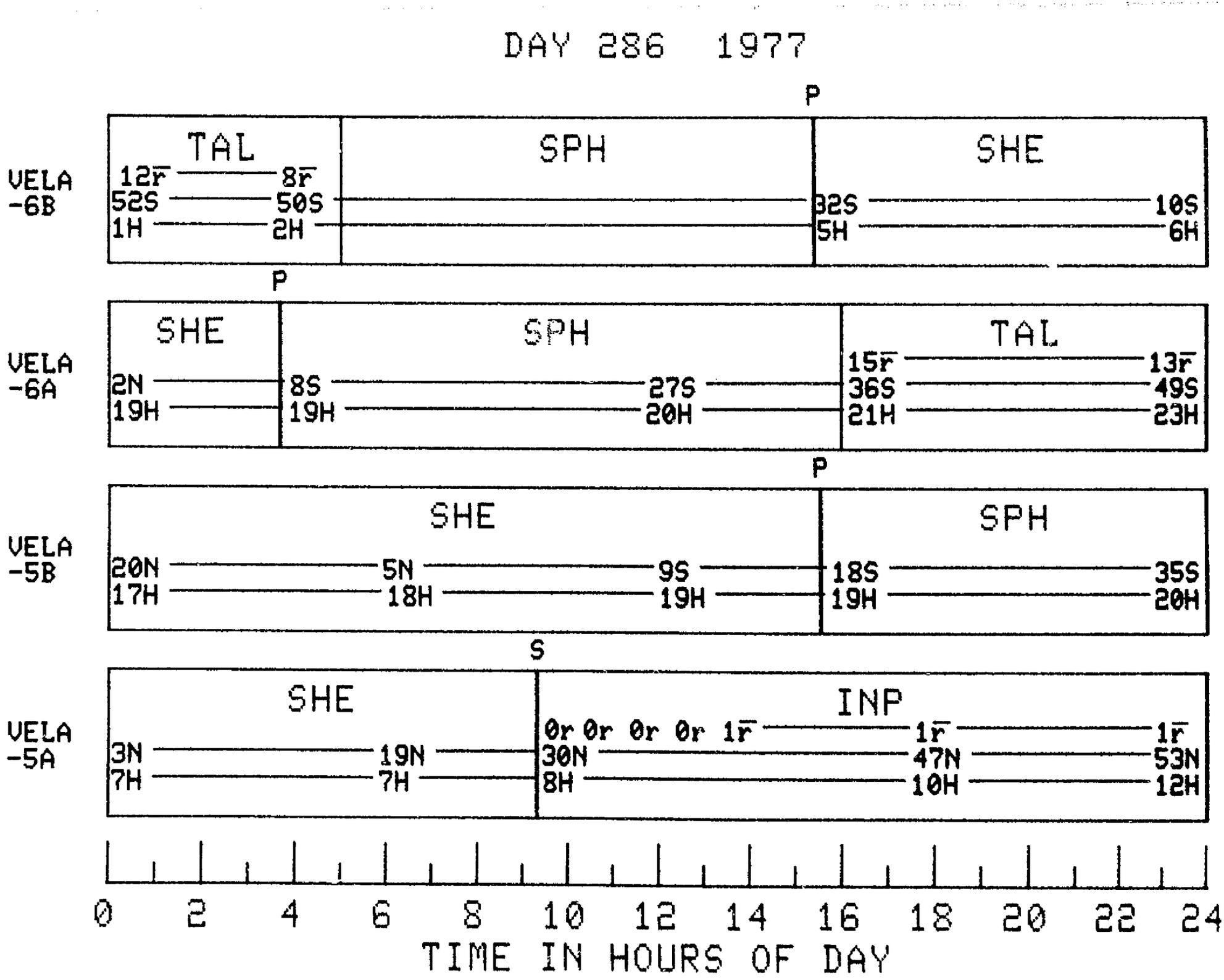

VELA -6B
SPH
TAL
12S
31S
19H
20H
13r̄
15r̄
13r̄
33S
48S
52S
21H
23H
1H
S
VELA -6A
INP
SHE
1r̄ 0r 0r
8r
51N 50N
32N
17N
2N
14H 14H
17H
18H
19H
S
VELA -5B
INP
SHE
1r̄
1r̄ 0r 0r 0r
3r
50N
53N 51N
34N
20N
11H
13H 14H
16H
17H
P
VELA -5A
SPH
SHE
50S
41S
28S
13S
3N
2H
4H
5H
6H
7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 285 1977

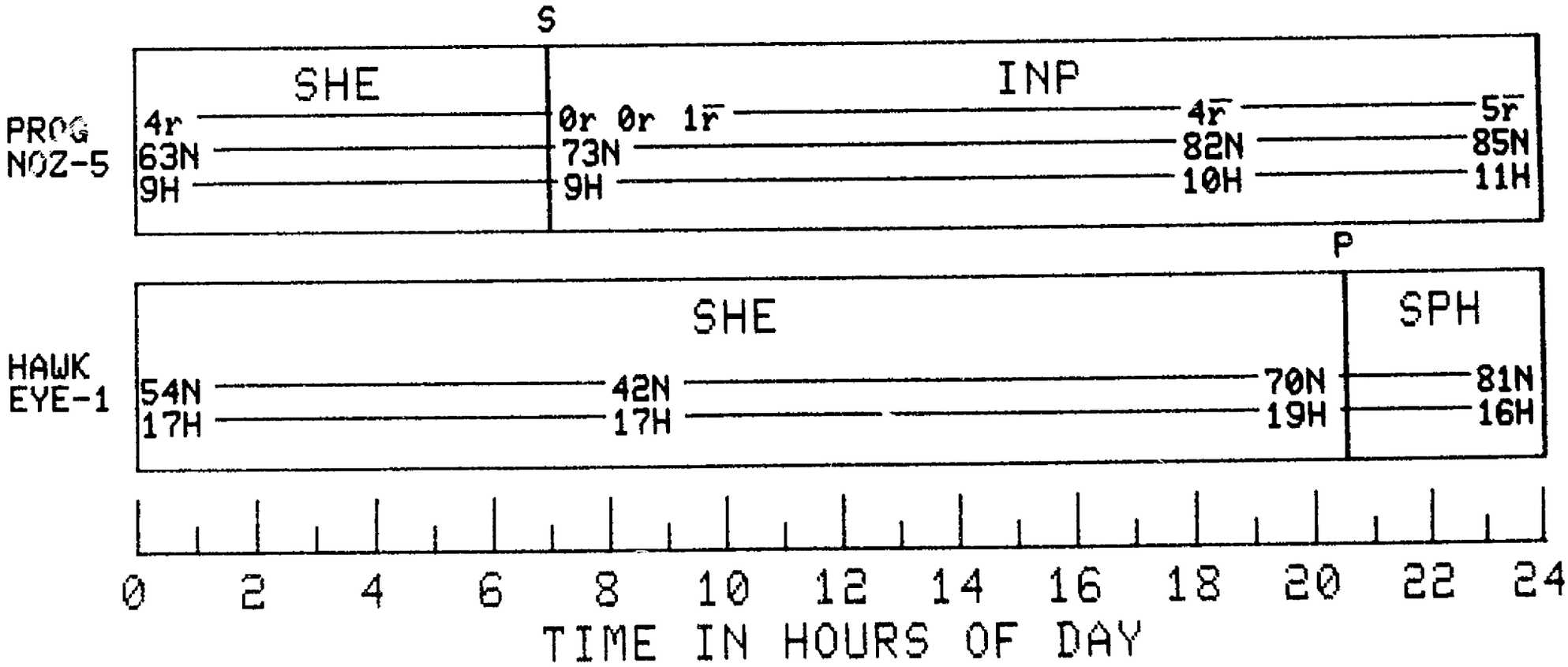

P
P
SHE
SPH
PROG
NOZ-5
69N
21H
64N
21H
55N
21H
43N
21H
29N
21H
67S
21H
30N
9H
54N
9H
53N
9H
P
SPH
SHE
HAWK
EYE-1
89N
10H
73N
6H
76S
18H
5S
17H
7N
17H
20N
17H
29N
18H
42N
18H
52N
17H
54N
17H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 286 1977

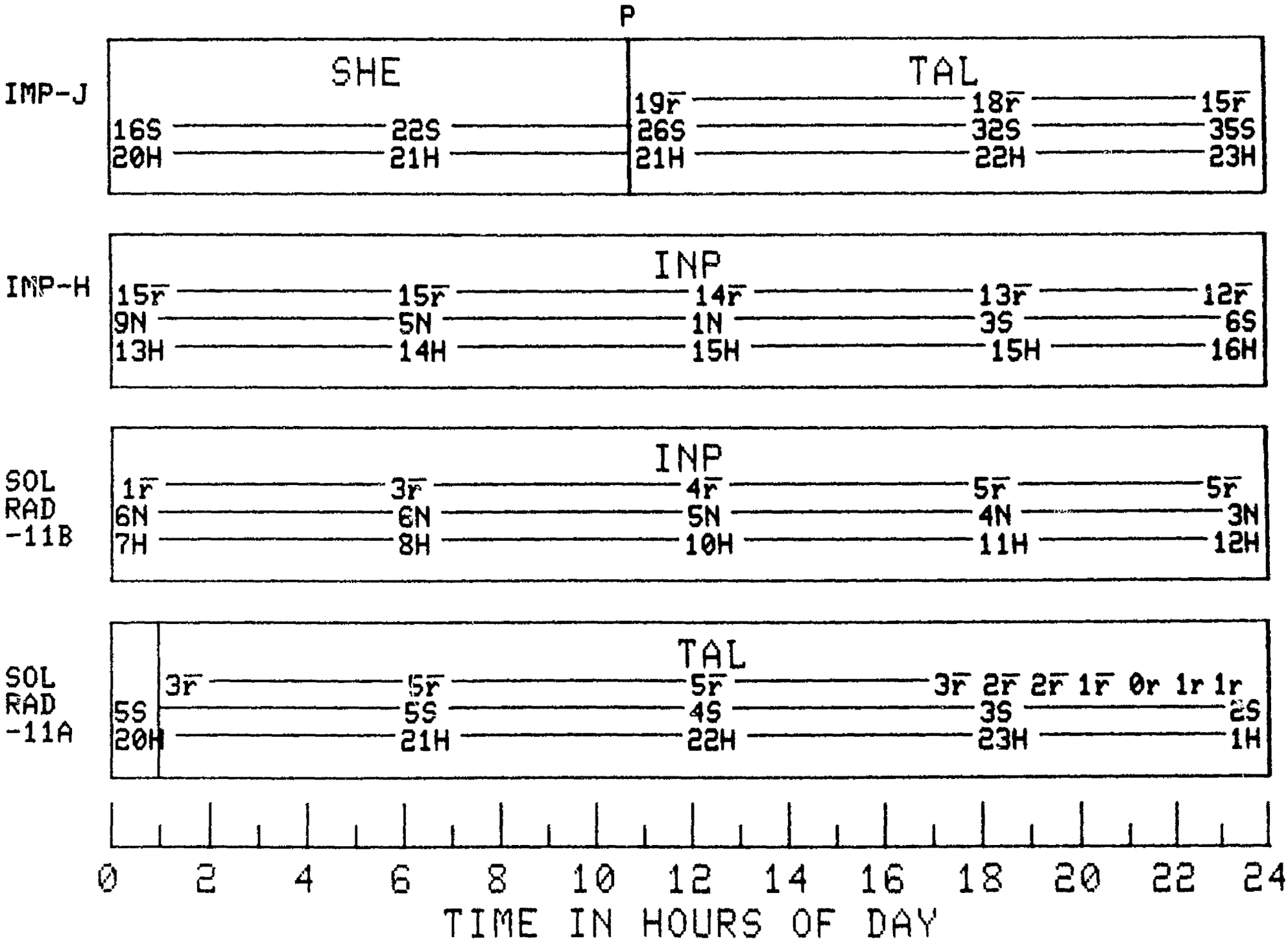

S
IMP-J
INP
SHE
4r̄ 1r̄
6N 1N 4S 10S 16S
18H 18H 19H 19H 20H
IMP-H
INP
17r̄ 16r̄ 16r̄ 16r̄ 15r̄
21N 18N 16N 12N 9N
11H 12H 12H 13H 13H
P
S
SOL RAD -11B
TAL
SPH
SHE
INP
5r 10r
1N 2N 4N
3H 4H 5H
0r 1r̄
5N 6N
7H 7H
S
P
SOL RAD -11A
INP
SHE
SPH
2r̄ 1r̄
2S 3S 5S 5S 5S
15H 16H 18H 19H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

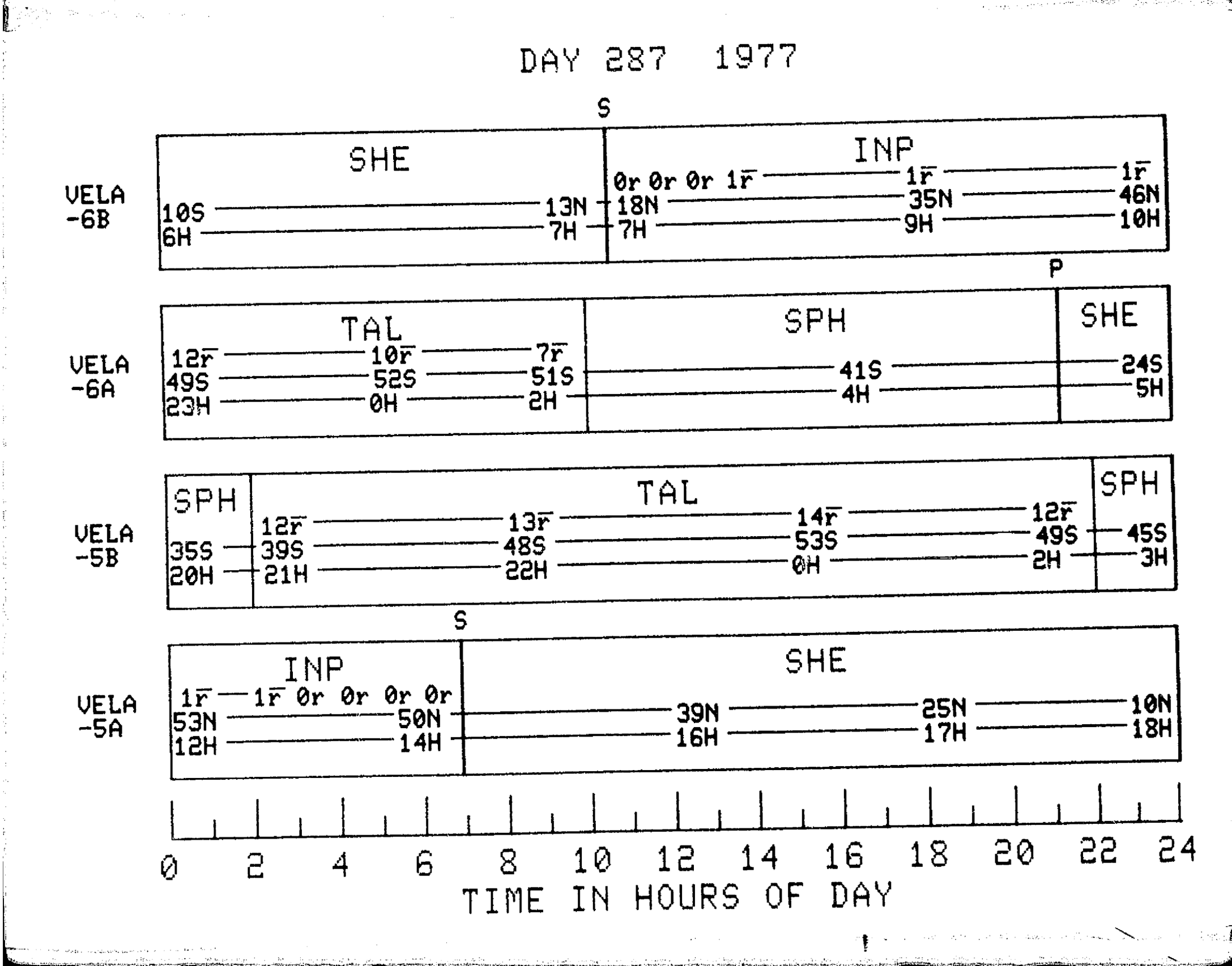

DAY 286 1977
VELA -6B
TAL
SPH
SHE
P
12r 8r
52S 50S
1H 2H
32S 10S
5H 6H
VELA -6A
SHE
SPH
TAL
P
2N 8S 27S
19H 19H 20H
15r 13r
36S 49S
21H 23H
VELA -5B
SHE
SPH
P
20N 5N 9S
17H 18H 19H
18S 35S
19H 20H
VELA -5A
SHE
INP
S
3N 19N
7H 7H
0r 0r 0r 0r 1r 1r 1r
30N 47N 53N
8H 10H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 286 1977

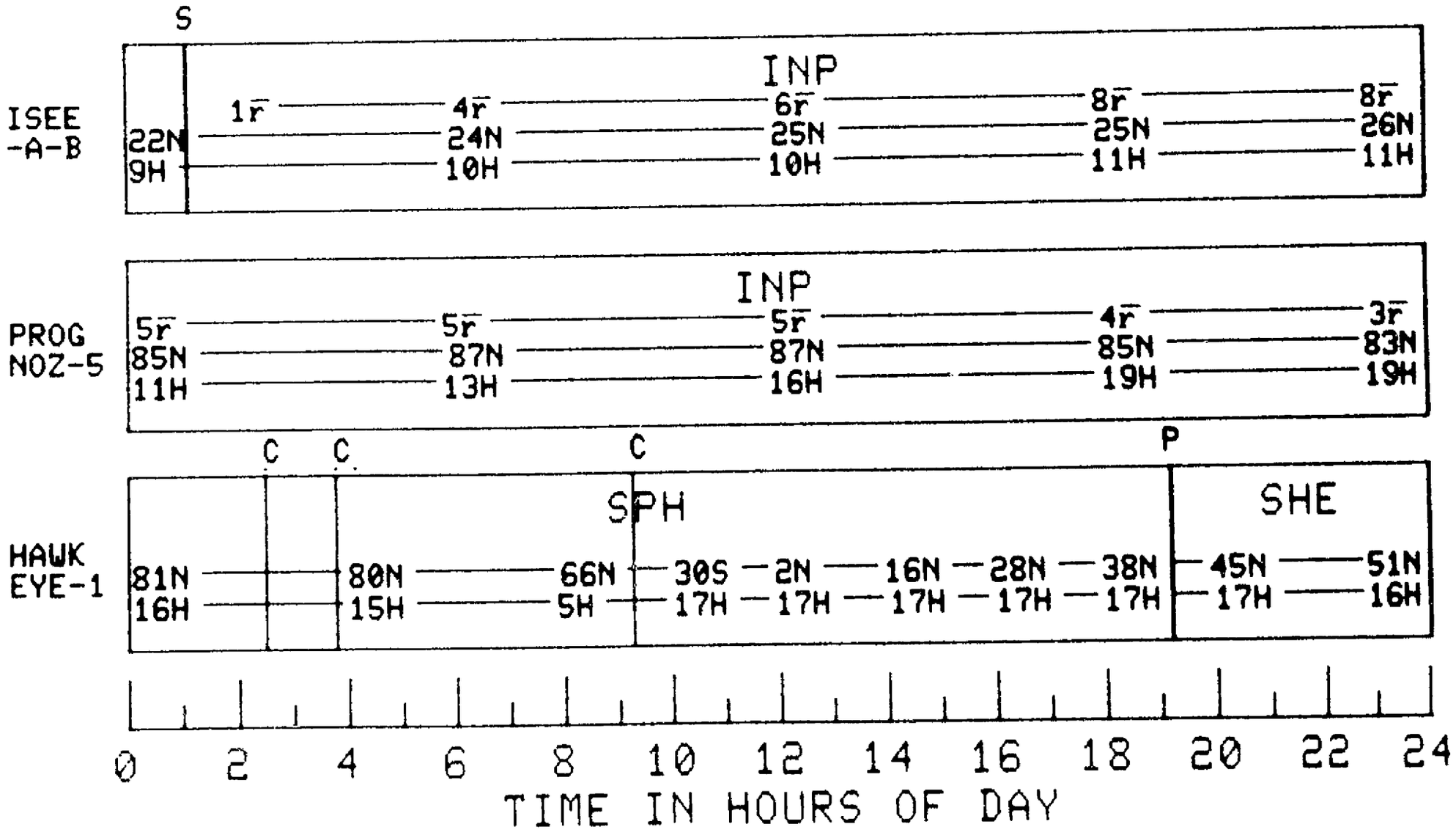

S
SHE
INP
PROG
NOZ-5
4r
63N
9H
0r 0r 1r̄
73N
9H
4r̄
82N
10H
5r̄
85N
11H
P
SHE
SPH
HAWK
EYE-1
54N
17H
42N
17H
70N
19H
81N
16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 287 1977

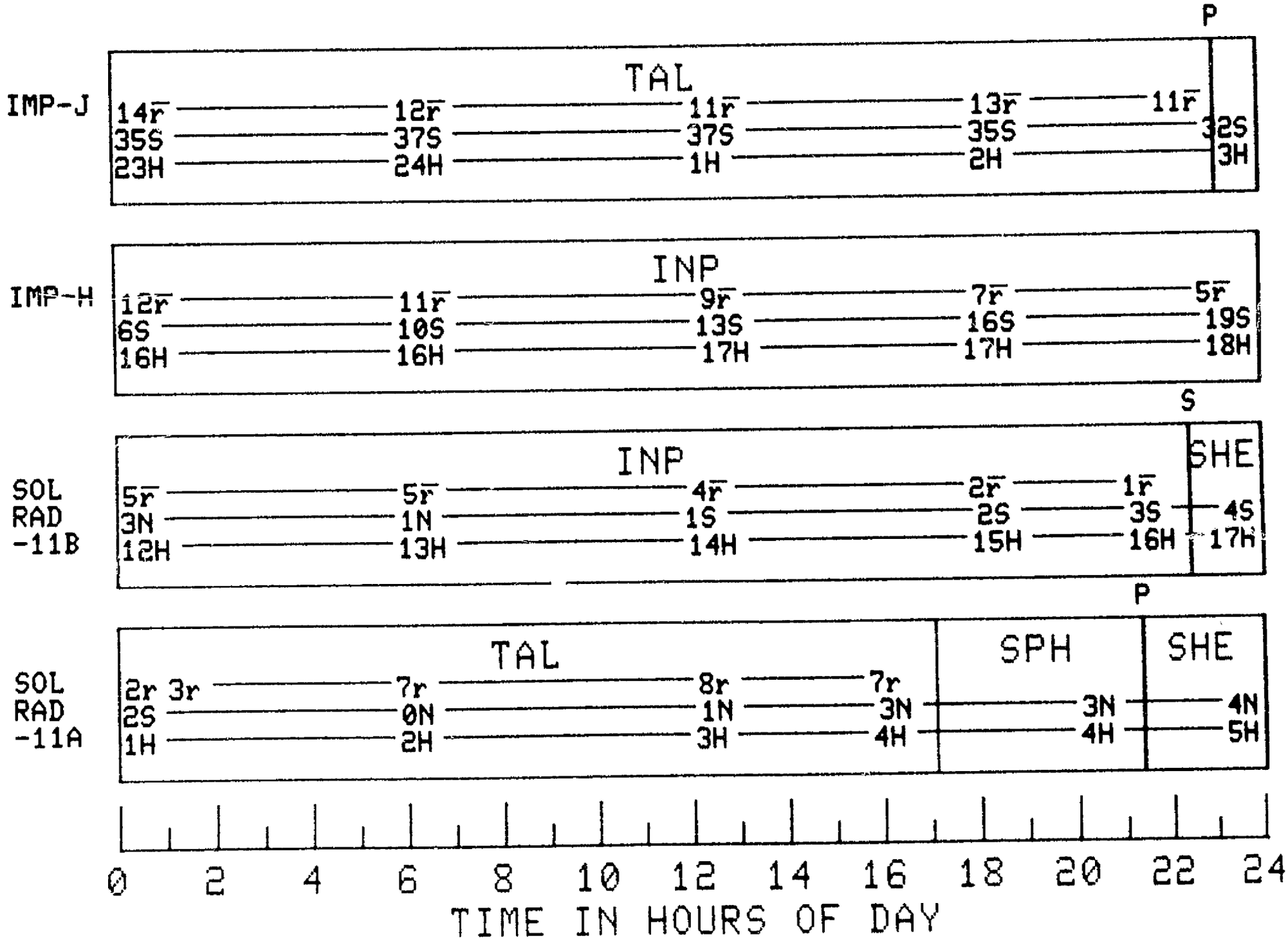

P
IMP-J
SHE
16S 22S
20H 21H
TAL
19r̄ 18r̄ 15r̄
26S 32S 35S
21H 22H 23H
IMP-H
INP
15r̄ 15r̄ 14r̄ 13r̄ 12r̄
9N 5N 1N 3S 6S
13H 14H 15H 15H 16H
SOL RAD -11B
INP
1r̄ 3r̄ 4r̄ 5r̄ 5r̄
6N 6N 5N 4N 3N
7H 8H 10H 11H 12H
SOL RAD -11A
TAL
5S 3r̄ 5r̄ 5r̄ 3r̄ 2r̄ 2r̄ 1r̄ 0r 1r 1r
5S 4S 3S 2S
20H 21H 22H 23H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

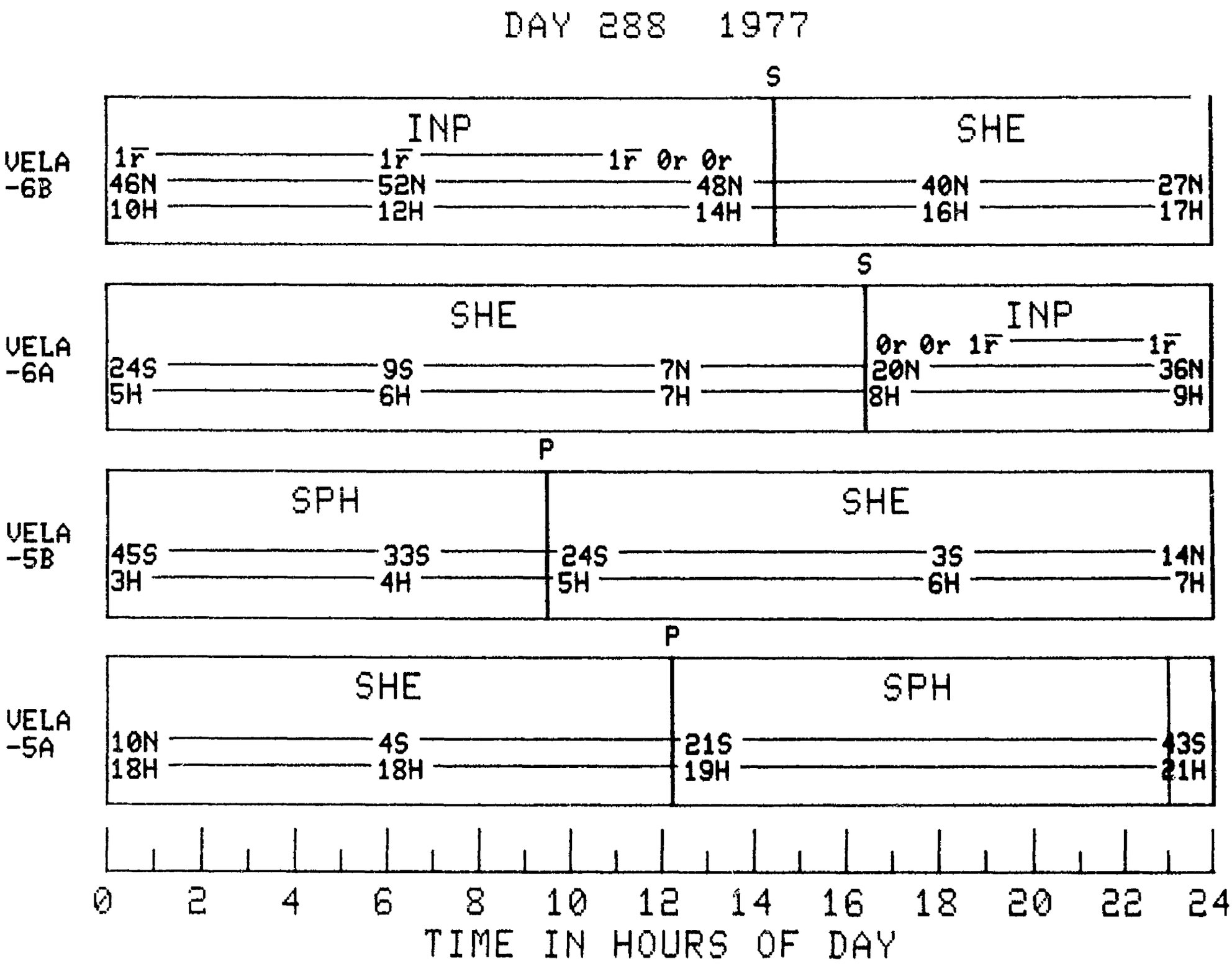

DAY 287 1977
S
SHE
INP
VELA -6B
10S 13N
6H 7H
0r 0r 0r 1r 1r 1r
18N 35N 46N
7H 9H 10H
P
TAL
SPH
SHE
VELA -6A
12r 10r 7r
49S 52S 51S
23H 0H 2H
41S 24S
4H 5H
SPH
TAL
SPH
VELA -5B
35S 12r 13r 14r 12r 45S
20H 39S 48S 53S 49S 3H
21H 22H 0H 2H
S
INP
SHE
VELA -5A
1r 1r 0r 0r 0r 0r
53N 50N 39N 25N 10N
12H 14H 16H 17H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 287 1977

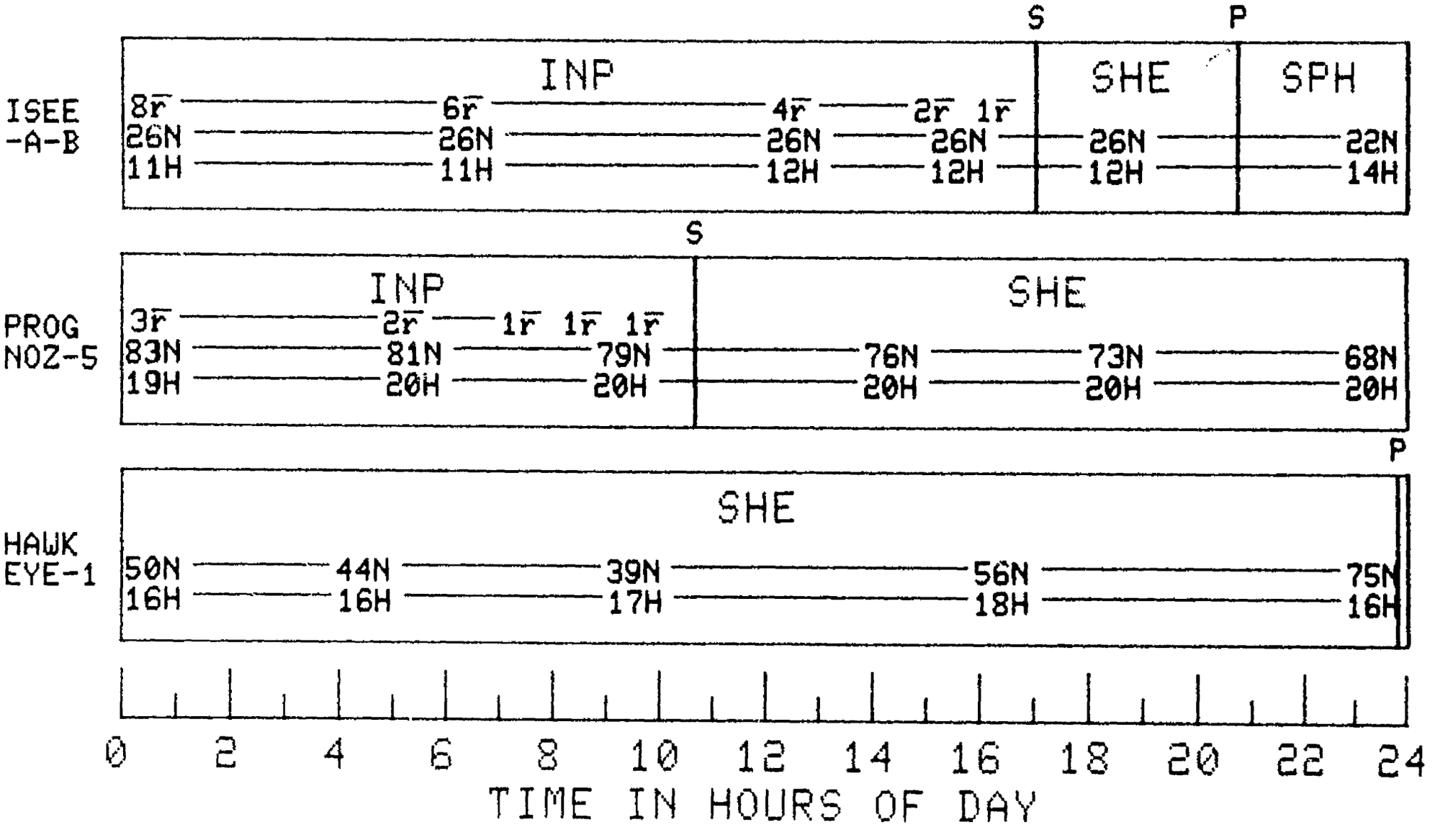

S
INP
ISEE
-A-B
1r
4r
6r
8r
8r
22N
24N
25N
25N
26N
9H
10H
10H
11H
11H
INP
PROG
NOZ-5
5r
5r
5r
4r
3r
85N
87N
87N
85N
83N
11H
13H
16H
19H
19H
C
C
C
P
SPH
SHE
HAWK
EYE-1
81N
80N
66N
30S
2N
16N
28N
38N
45N
51N
16H
15H
5H
17H
17H
17H
17H
17H
17H
16H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

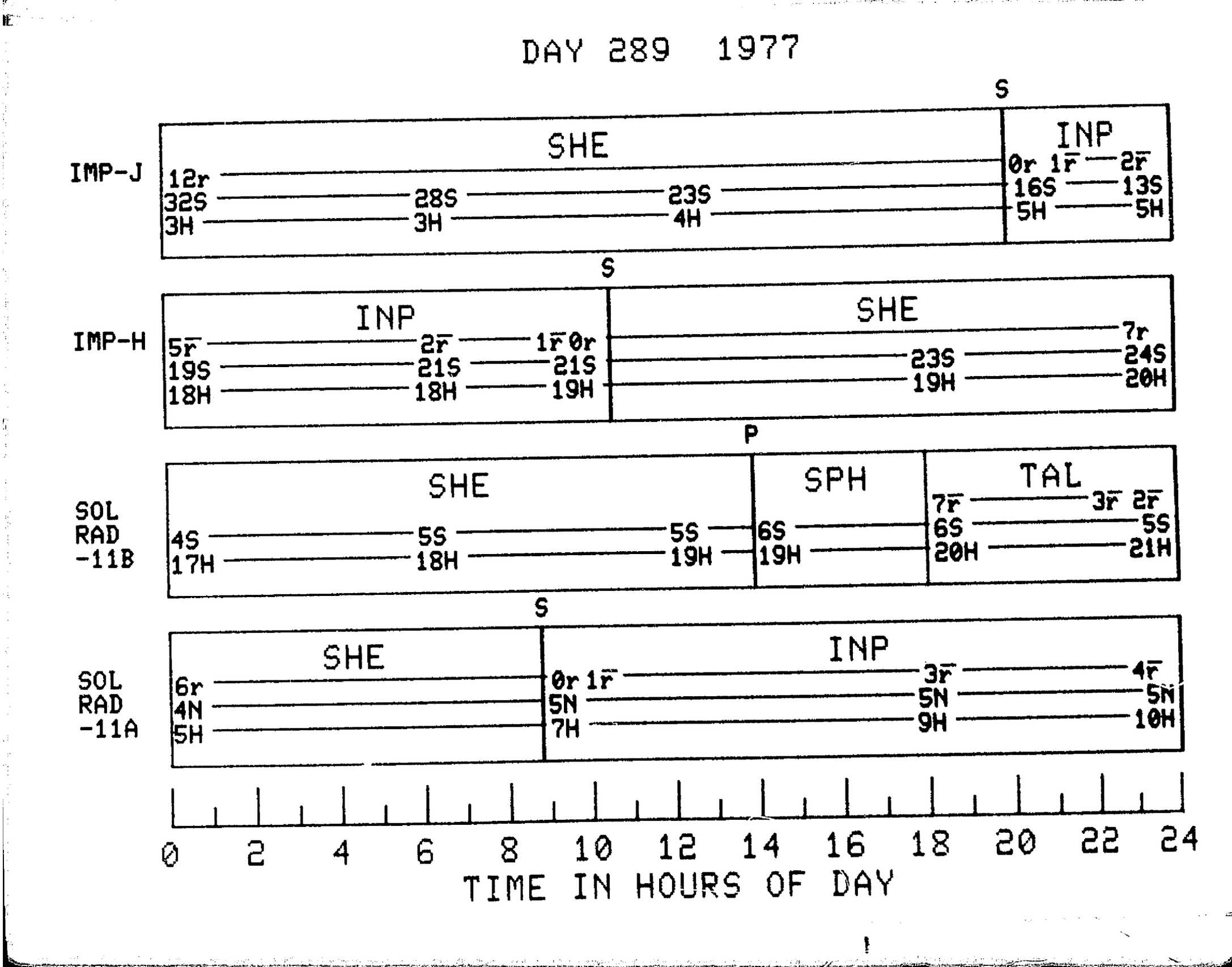
DAY 288 1977


P
IMP-J
TAL
14r 12r 11r 13r 11r
35S 37S 37S 35S 32S
23H 24H 1H 2H 3H
IMP-H
INP
12r 11r 9r 7r 5r
6S 10S 13S 16S 19S
16H 16H 17H 17H 18H
S
SOL
RAD
-11B
INP
SHE
5r 5r 4r 2r 1r
3N 1N 1S 2S 3S 4S
12H 13H 14H 15H 16H 17H
P
SOL
RAD
-11A
TAL
SPH
SHE
2r 3r 7r 8r 7r
2S 0N 1N 3N 3N 4N
1H 2H 3H 4H 4H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

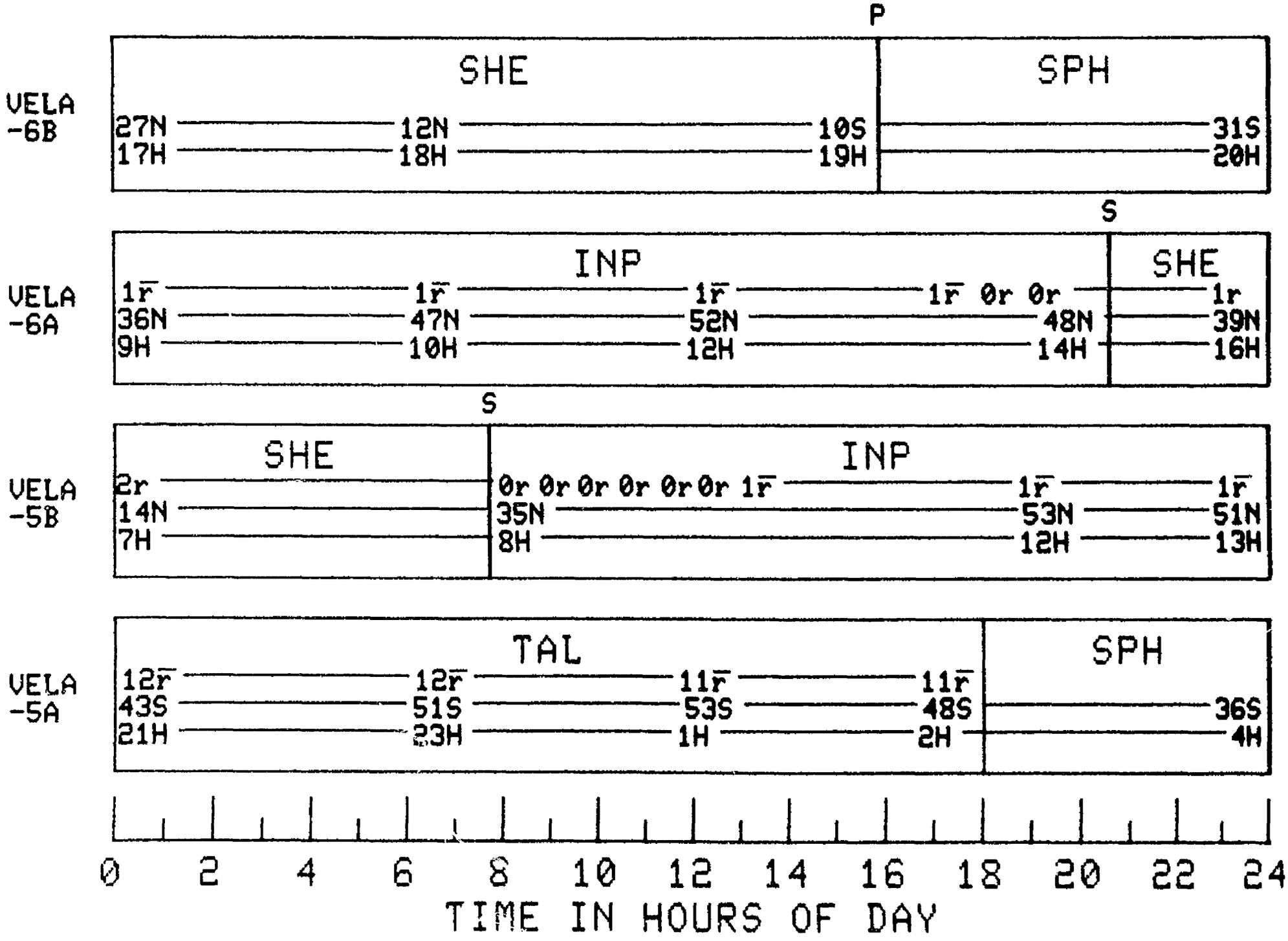

DAY 288 1977
S
INP
SHE
VELA -6B
1r 1r 1r 0r 0r
46N 52N 48N 40N 27N
10H 12H 14H 16H 17H
S
SHE
INP
VELA -6A
0r 0r 1r 1r
24S 9S 7N 20N 36N
5H 6H 7H 8H 9H
P
SPH
SHE
VELA -5B
45S 33S 24S 3S 14N
3H 4H 5H 6H 7H
P
SHE
SPH
VELA -5A
10N 4S 21S 43S
18H 18H 19H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 288 1977

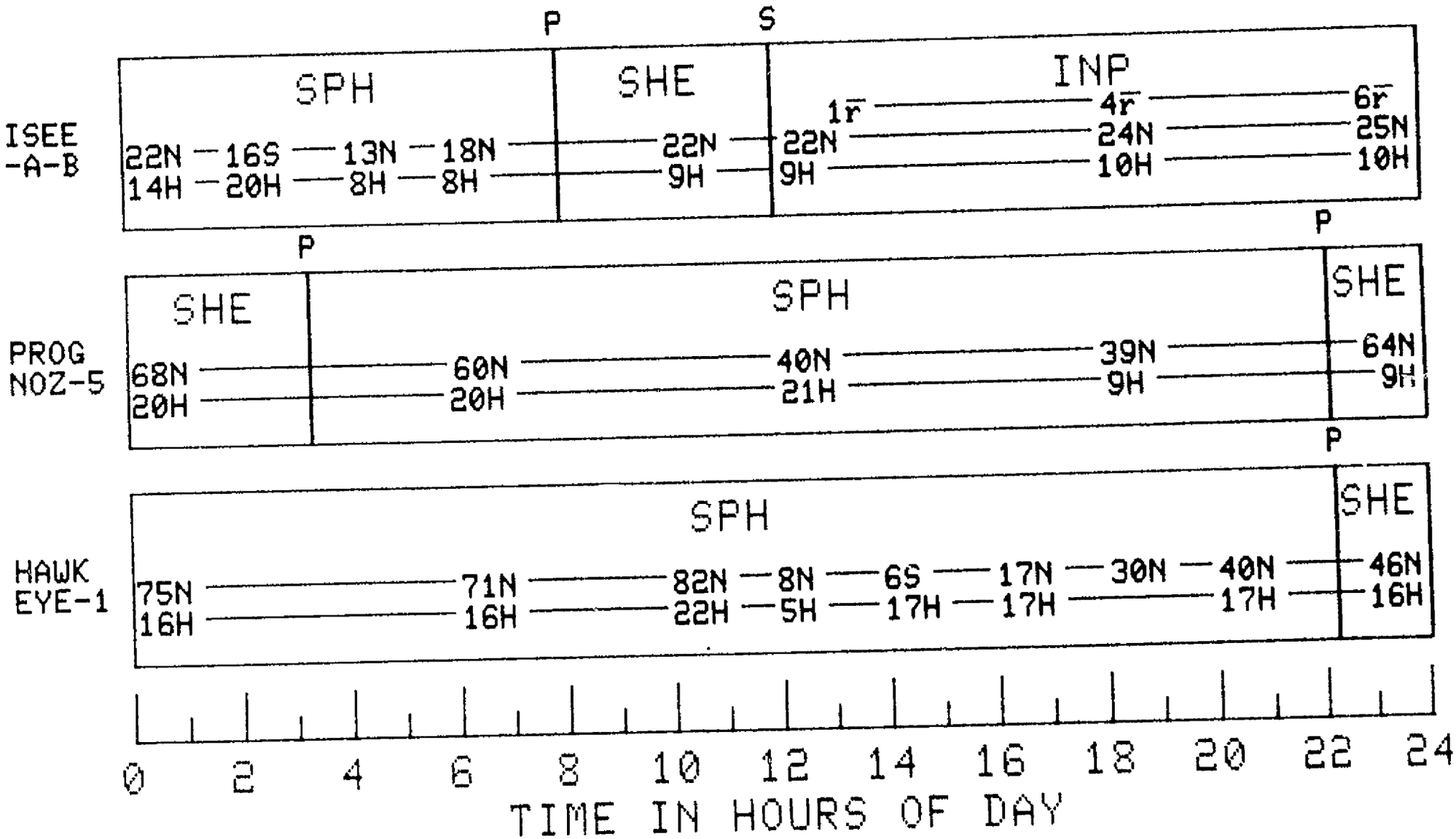

S
P
ISEE
-A-B
INP
SHE
SPH
8r̄ 6r̄ 4r̄ 2r̄ 1r̄
26N 26N 26N 26N 26N 22N
11H 11H 12H 12H 12H 14H
S
PROG
NOZ-5
INP
SHE
3r̄ 2r̄ 1r̄ 1r̄ 1r̄
83N 81N 79N 76N 73N 68N
19H 20H 20H 20H 20H 20H
P
HAWK
EYE-1
SHE
50N 44N 39N 56N 75N
16H 16H 17H 18H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 289 1977
IMP-J
SHE
INP
S
12r
32S
3H
28S
3H
23S
4H
0r 1r̄ 2r̄
16S 13S
5H 5H
IMP-H
INP
SHE
S
5r̄ 2r̄ 1r̄ 0r
19S 21S 21S
18H 18H 19H
7r
23S 24S
19H 20H
SOL RAD -11B
SHE
SPH
TAL
P
4S 5S 5S
17H 18H 19H
6S
19H
7r̄ 3r̄ 2r̄
6S 5S
20H 21H
SOL RAD -11A
SHE
INP
S
6r
4N
5H
0r 1r̄ 3r̄ 4r̄
5N 5N
7H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

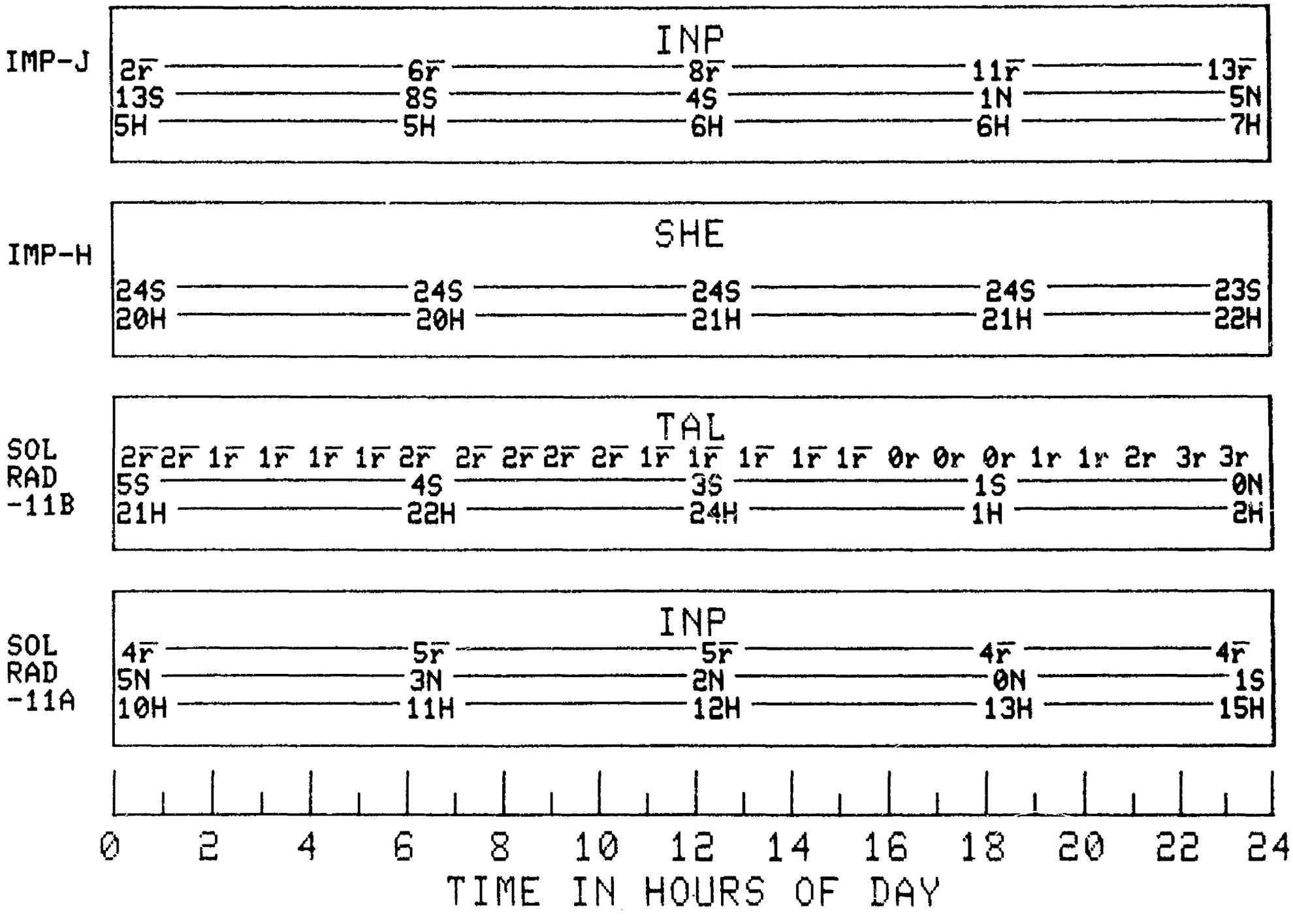
DAY 289 1977


P
VELA -6B
SHE
SPH
27N 12N 10S 31S
17H 18H 19H 20H
S
VELA -6A
INP
SHE
1r 1r 1r 1r 0r 0r 1r
36N 47N 52N 48N 39N
9H 10H 12H 14H 16H
S
VELA -5B
SHE
INP
2r 0r 0r 0r 0r 0r 0r 1r 1r 1r
14N 35N 53N 51N
7H 8H 12H 13H
VELA -5A
TAL
SPH
12r 12r 11r 11r
43S 51S 53S 48S 36S
21H 23H 1H 2H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

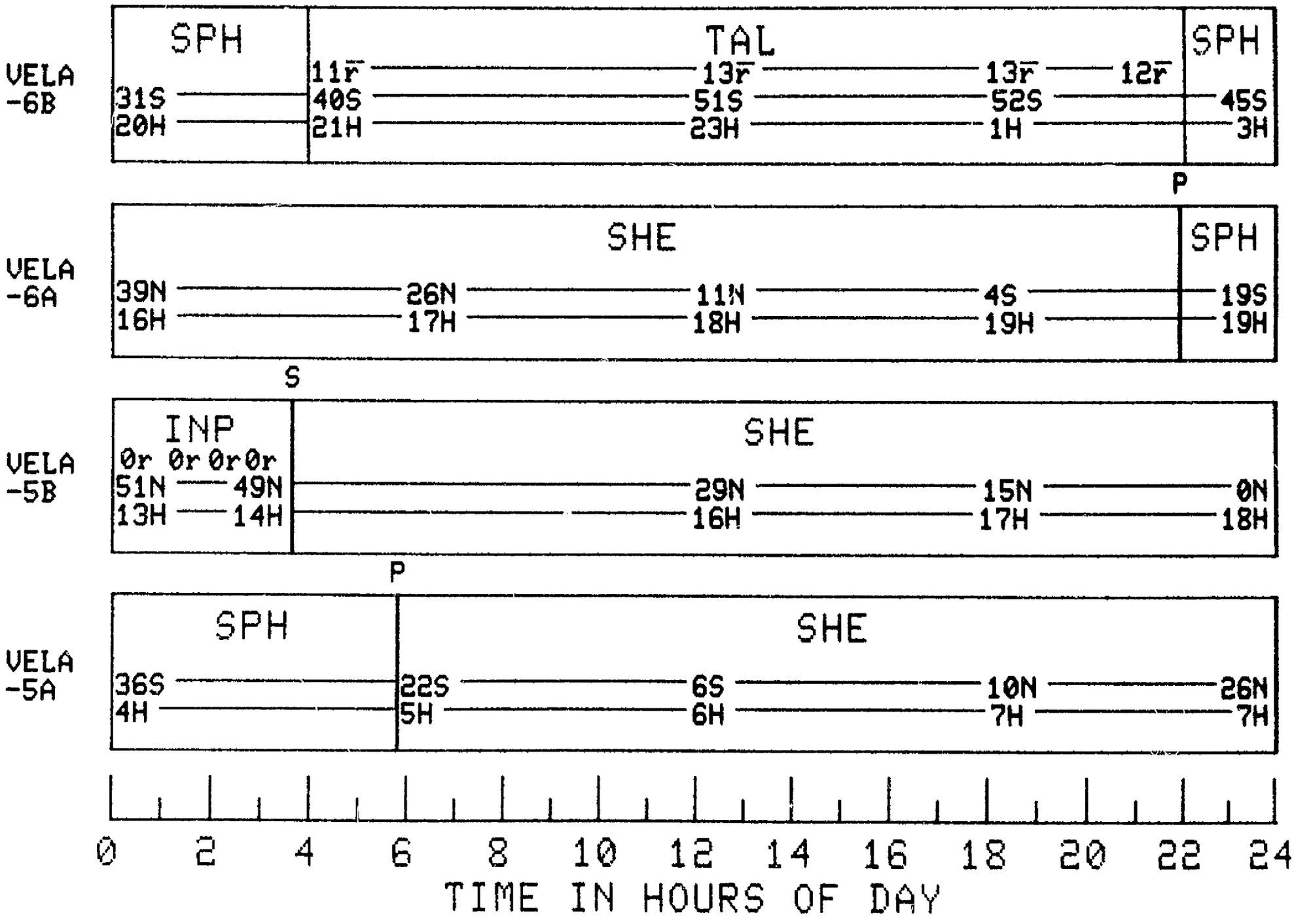
DAY 289 1977


P
S
SPH
SHE
INP
ISEE
-A-B
22N 16S 13N 18N
14H 20H 8H 8H
22N
9H
1r 4r 6r
22N 24N 25N
9H 10H 10H
P
P
SHE
SPH
SHE
PROG
NOZ-5
68N 60N 40N 39N 64N
20H 20H 21H 9H 9H
P
SPH
SHE
HAWK
EYE-1
75N 71N 82N 8N 6S 17N 30N 40N 46N
16H 16H 22H 5H 17H 17H 17H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

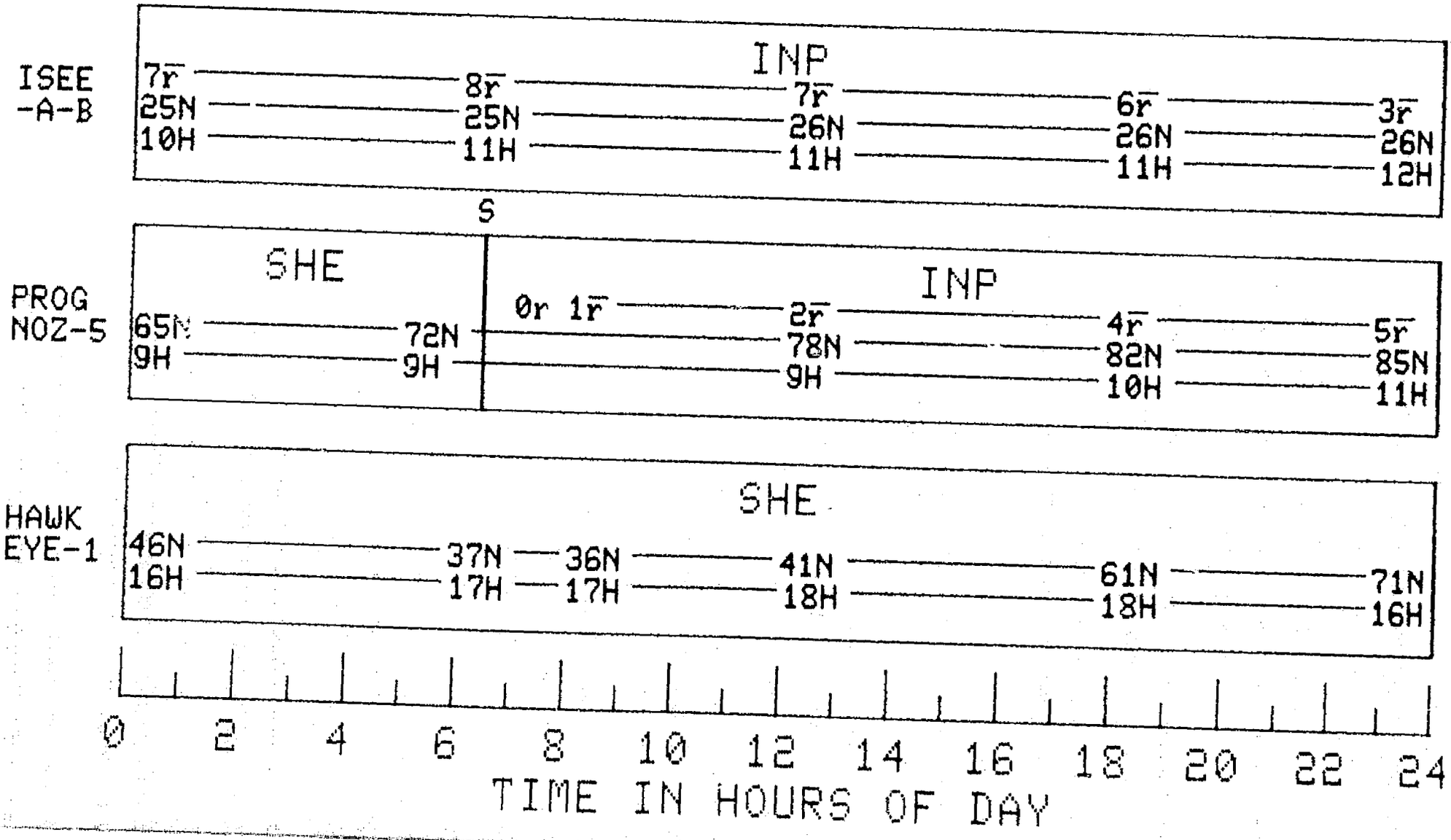
DAY 290 1977


IMP-J
INP
2r̄ 6r̄ 8r̄ 11r̄ 13r̄
13S 8S 4S 1N 5N
5H 5H 6H 6H 7H
IMP-H
SHE
24S 24S 24S 24S 23S
20H 20H 21H 21H 22H
SOL RAD -11B
TAL
2r̄ 2r̄ 1r̄ 1r̄ 1r̄ 1r̄ 2r̄ 2r̄ 2r̄ 2r̄ 2r̄ 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 0r 0r 0r 1r 1r 2r 3r 3r
5S 4S 3S 1S 0N
21H 22H 24H 1H 2H
SOL RAD -11A
INP
4r̄ 5r̄ 5r̄ 4r̄ 4r̄
5N 3N 2N 0N 1S
10H 11H 12H 13H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

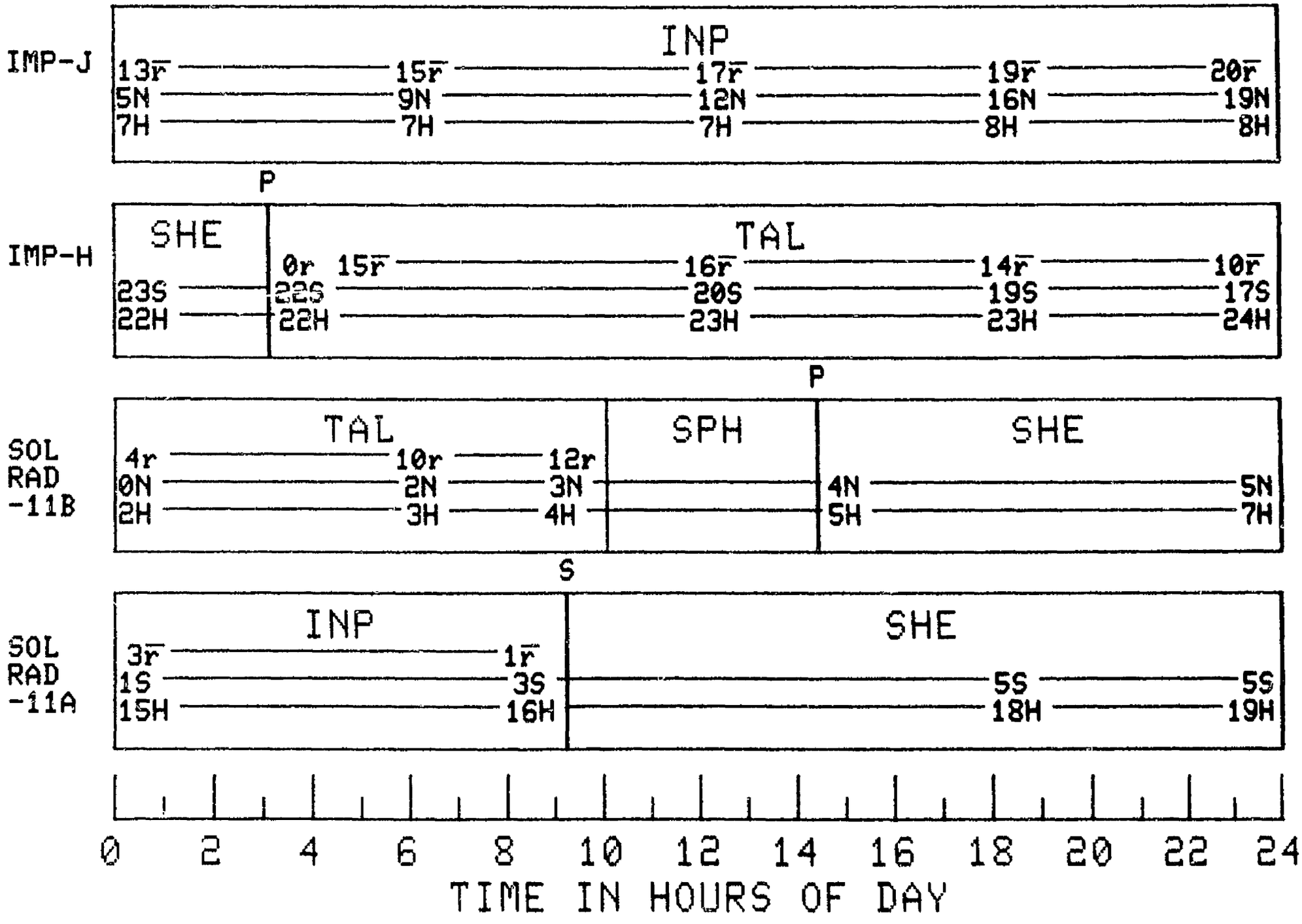
DAY 290 1977


VELA -6B
SPH
TAL
SPH
11r̄ 13r̄ 13r̄ 12r̄
31S 40S 51S 52S 45S
20H 21H 23H 1H 3H
P
VELA -6A
SHE
SPH
39N 26N 11N 4S 19S
16H 17H 18H 19H 19H
S
VELA -5B
INP
SHE
0r 0r 0r 0r
51N 49N 29N 15N 0N
13H 14H 16H 17H 18H
P
VELA -5A
SPH
SHE
36S 22S 6S 10N 26N
4H 5H 6H 7H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

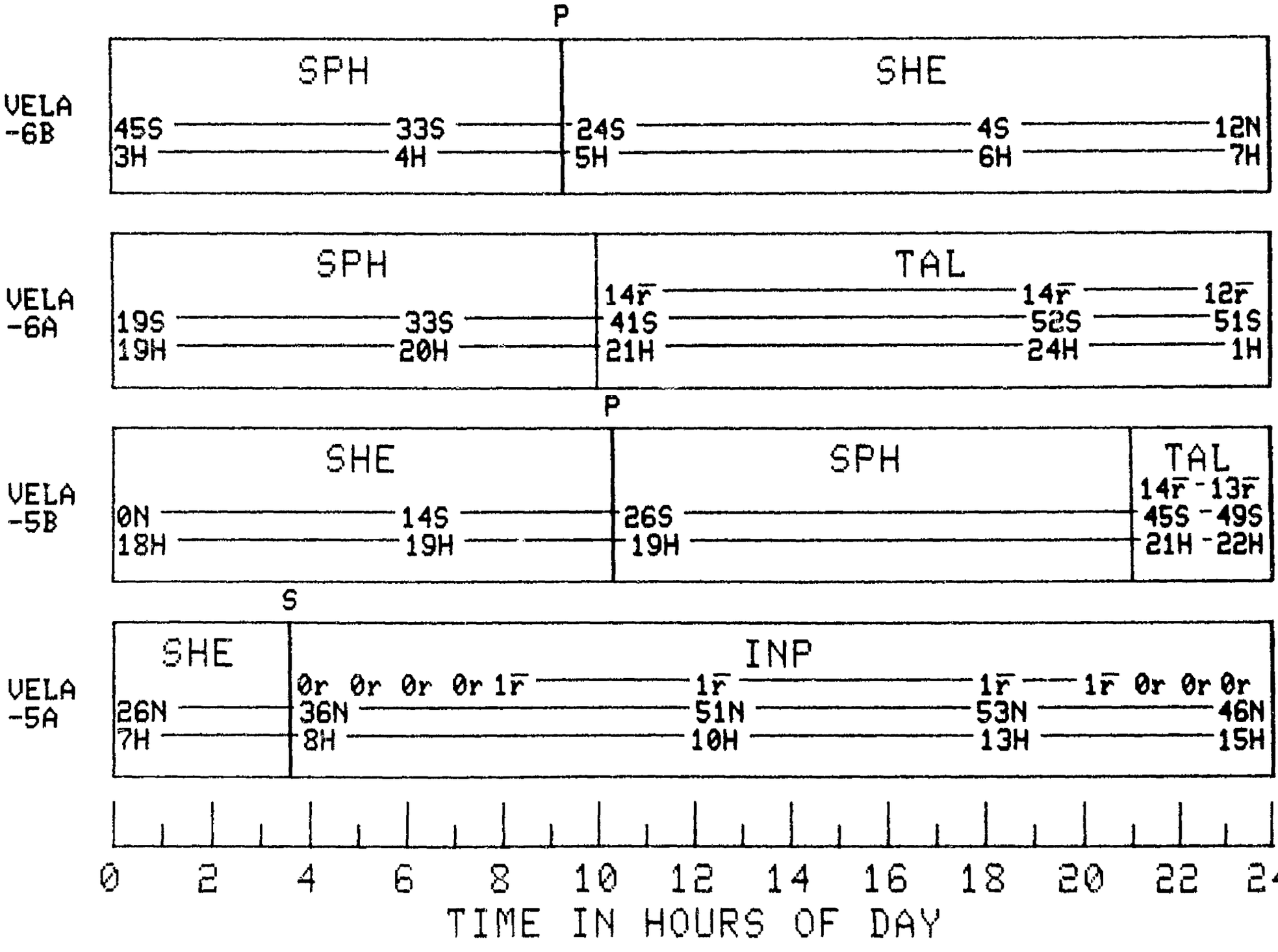
DAY 290 1977


ISEE
-A-B
INP
7r̄
25N
10H
8r̄
25N
11H
7r̄
26N
11H
6r̄
26N
11H
3r̄
26N
12H
S
PROG
NOZ-5
SHE
65N
9H
72N
9H
INP
0r 1r̄
2r̄
78N
9H
4r̄
82N
10H
5r̄
85N
11H
HAWK
EYE-1
SHE
46N
16H
37N
17H
36N
17H
41N
18H
61N
18H
71N
16H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

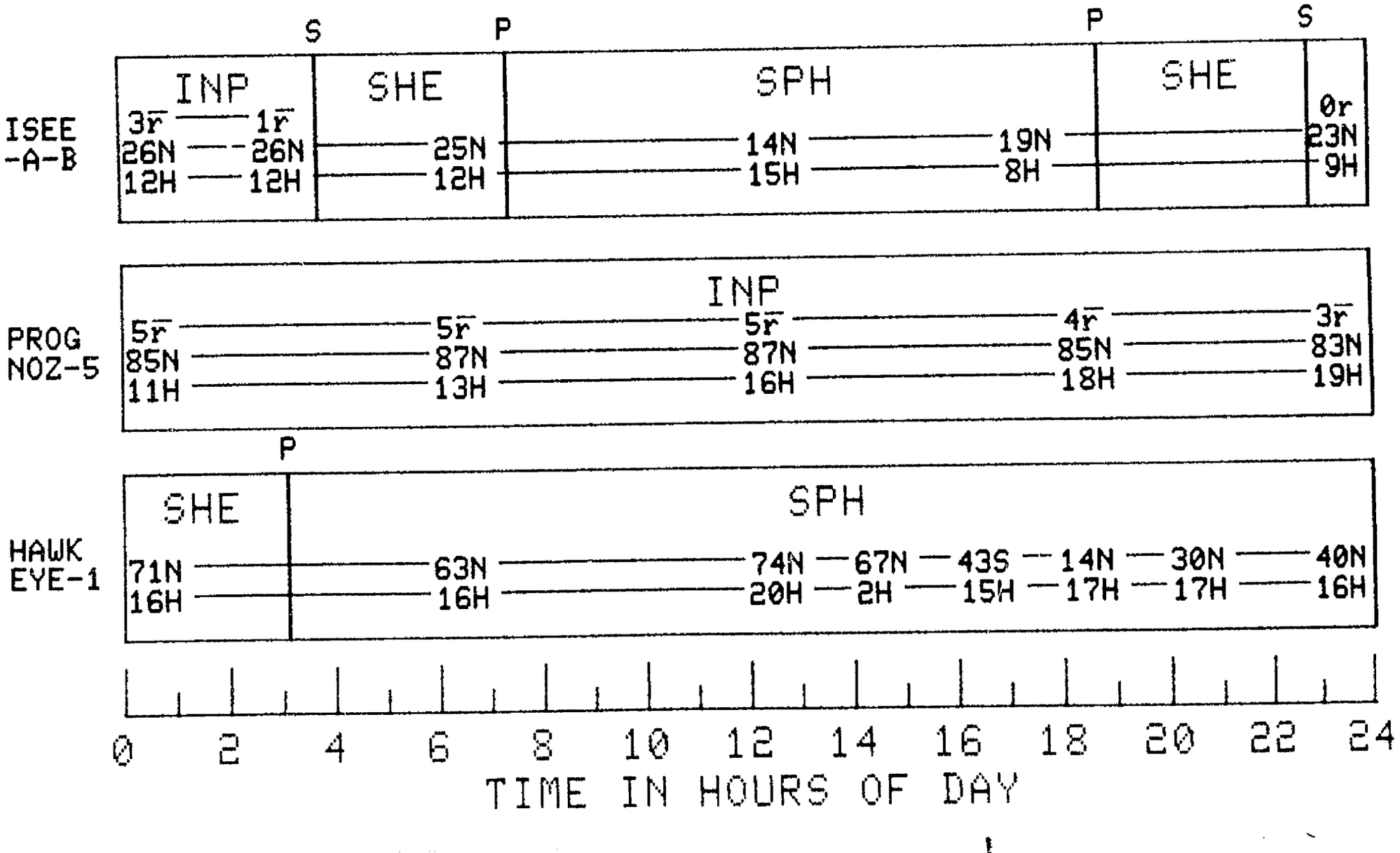
DAY 291 1977


IMP-J
INP
13r 15r 17r 19r 20r
5N 9N 12N 16N 19N
7H 7H 7H 8H 8H
P
IMP-H
SHE
23S
22H
TAL
0r 15r 16r 14r 10r
22S 20S 19S 17S
22H 23H 23H 24H
P
SOL RAD -11B
TAL
4r 10r 12r
0N 2N 3N
2H 3H 4H
SPH
SHE
4N 5N
5H 7H
S
SOL RAD -11A
INP
3r 1r
1S 3S
15H 16H
SHE
5S 5S
18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

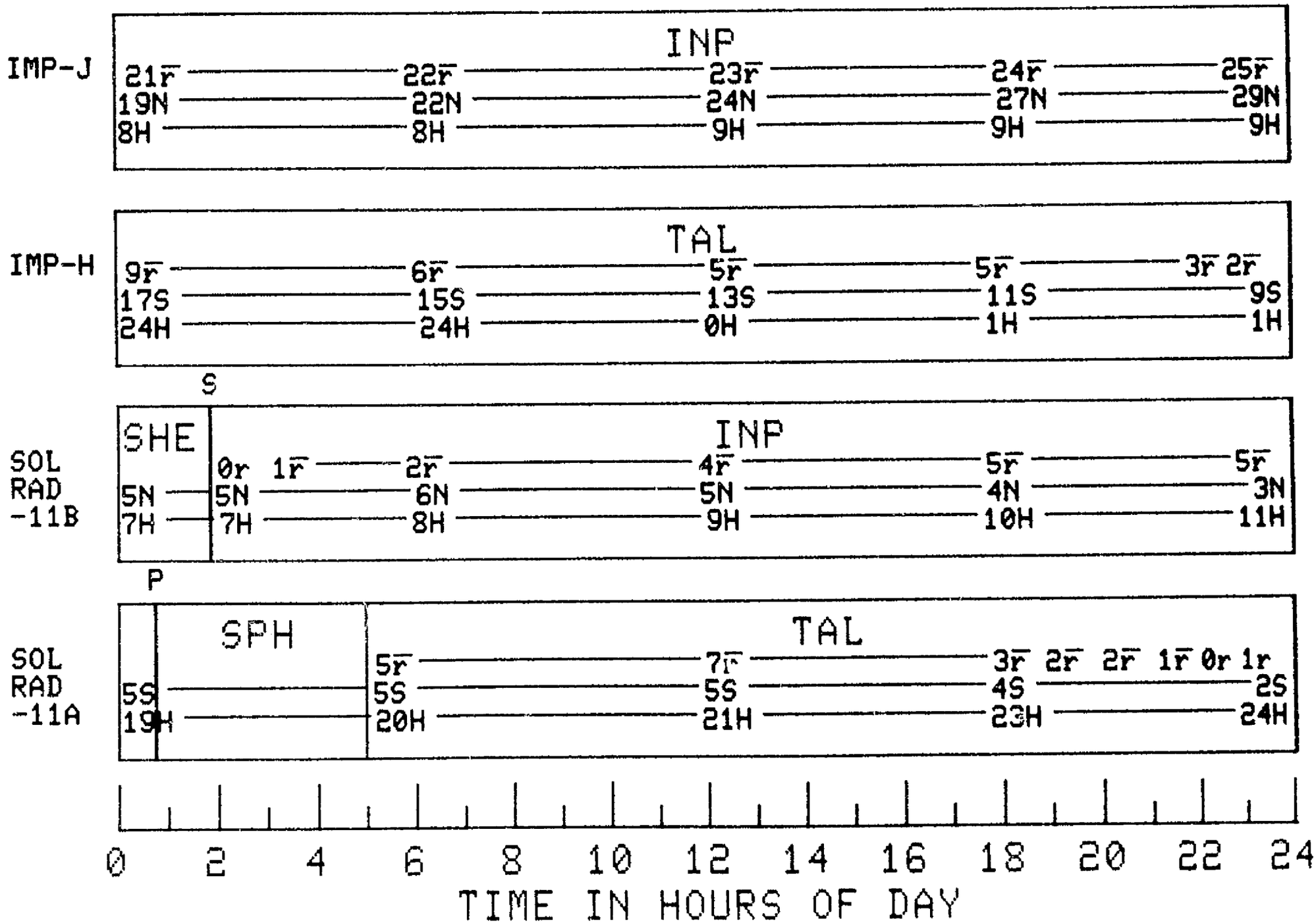
DAY 291 1977


P
SPH
SHE
VELA -6B
45S 33S 24S 4S 12N
3H 4H 5H 6H 7H
SPH
TAL
VELA -6A
19S 33S 14r 14r 12r
19H 20H 41S 52S 51S
21H 24H 1H
P
SHE
SPH
TAL
VELA -5B
0N 14S 26S 14r - 13r
18H 19H 19H 45S - 49S
21H - 22H
S
SHE
INP
VELA -5A
26N 36N 51N 53N 46N
7H 8H 10H 13H 15H
0r 0r 0r 0r 1r 1r 1r 1r 0r 0r 0r
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

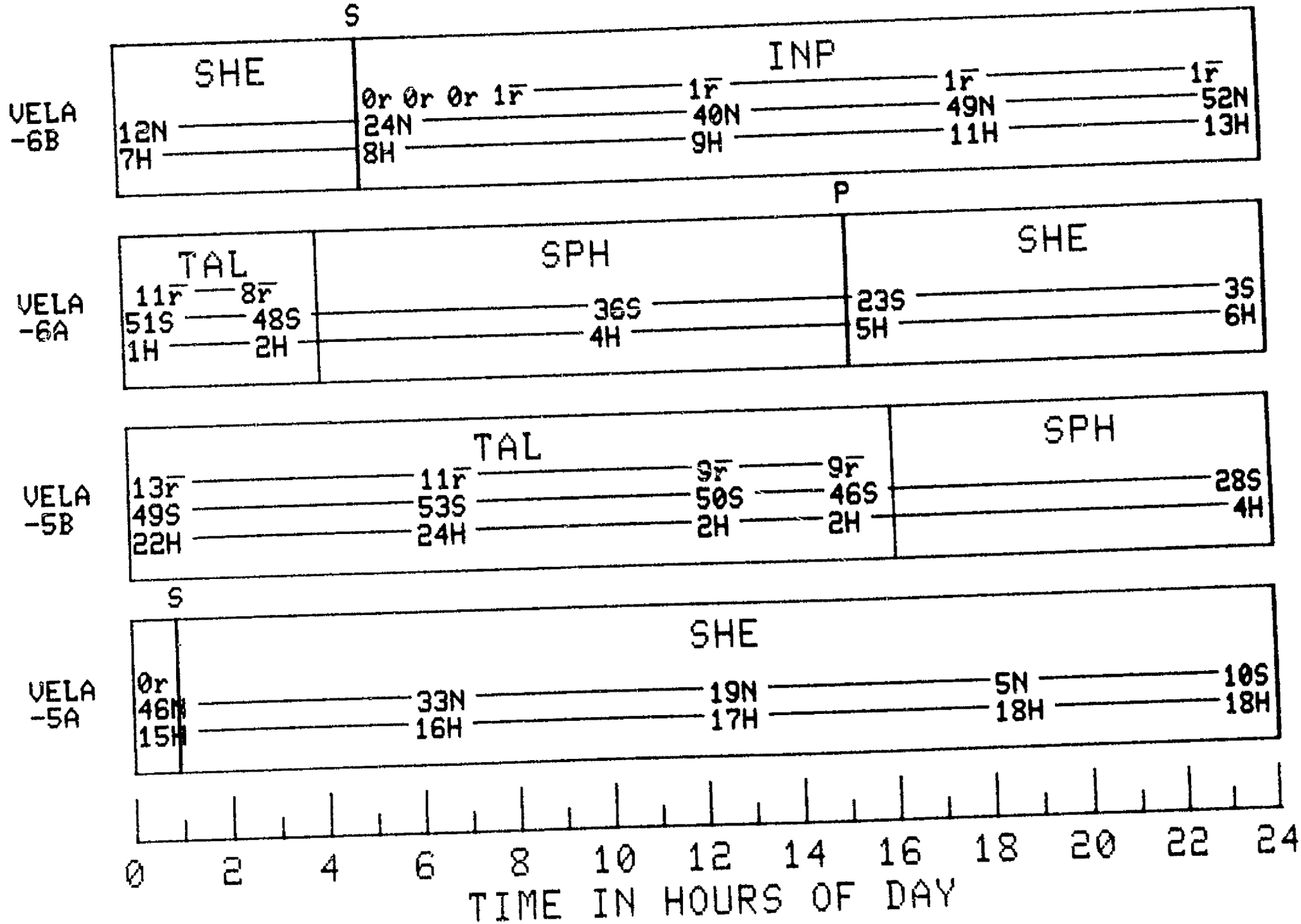
DAY 291 1977


S
P
P
S
INP
SHE
SPH
SHE
ISEE
-A-B
3r 1r
26N 26N
12H 12H
25N
12H
14N
15H
19N
8H
0r
23N
9H
INP
PROG
NOZ-5
5r 5r 5r 4r 3r
85N 87N 87N 85N 83N
11H 13H 16H 18H 19H
P
SHE
SPH
HAWK
EYE-1
71N 63N 74N 67N 43S 14N 30N 40N
16H 16H 20H 2H 15H 17H 17H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

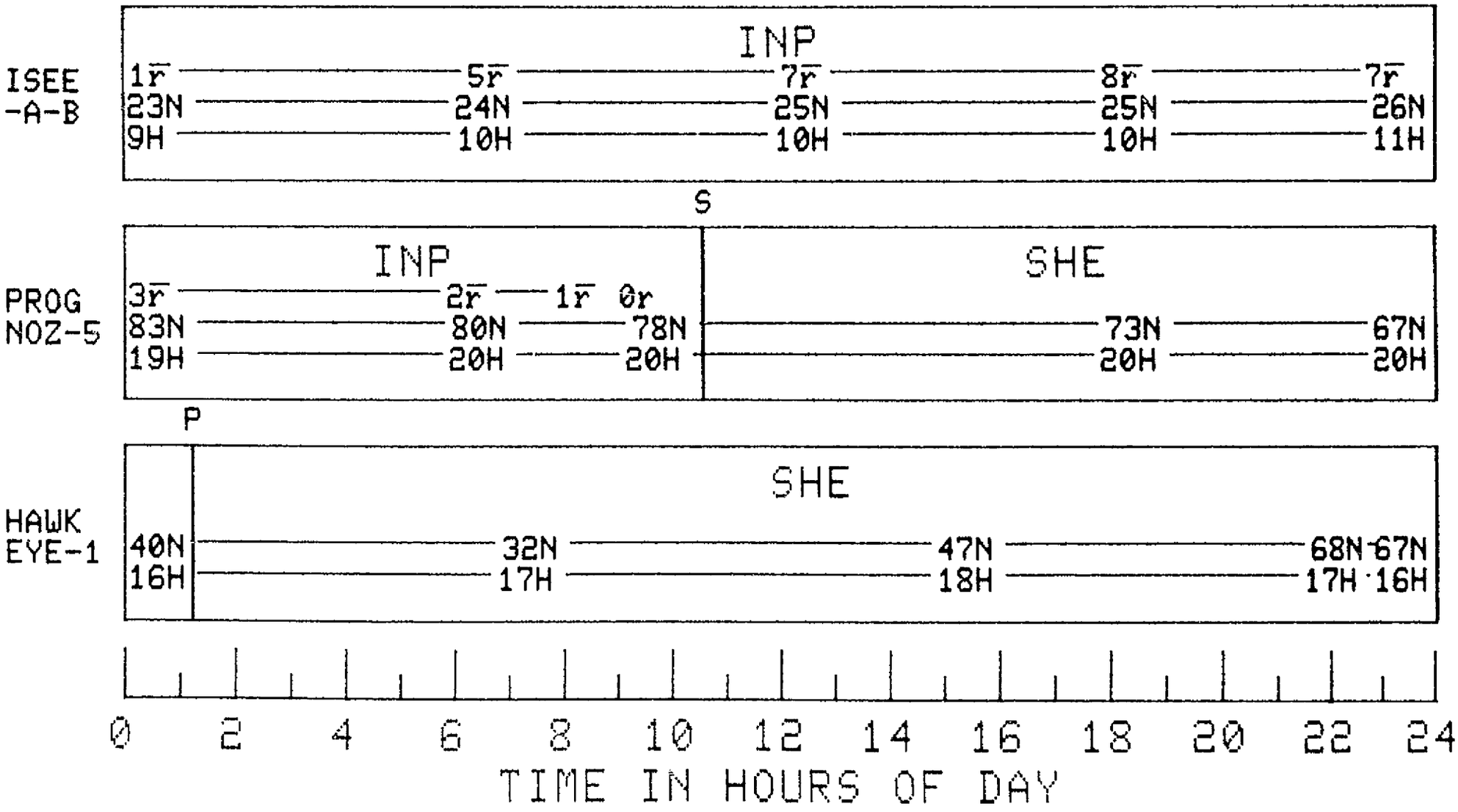
DAY 292 1977


IMP-J
INP
21r 22r 23r 24r 25r
19N 22N 24N 27N 29N
8H 8H 9H 9H 9H
IMP-H
TAL
9r 6r 5r 5r 3r 2r
17S 15S 13S 11S 9S
24H 24H 0H 1H 1H
S
SOL RAD -11B
SHE
INP
0r 1r 2r 4r 5r 5r
5N 5N 6N 5N 4N 3N
7H 7H 8H 9H 10H 11H
P
SOL RAD -11A
SPH
TAL
5r 7r 3r 2r 2r 1r 0r 1r
5S 5S 5S 4S 2S
19H 20H 21H 23H 24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

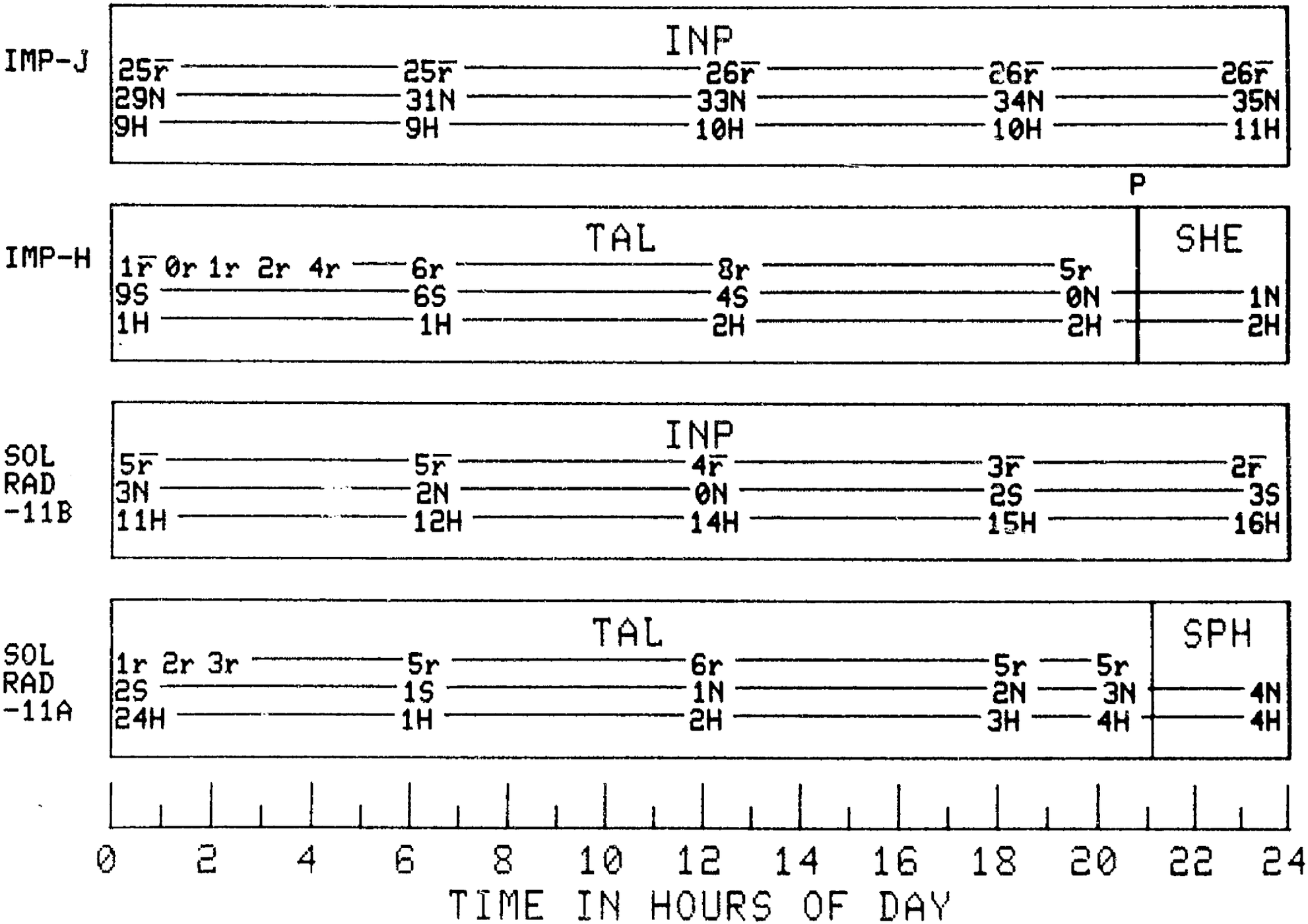
DAY 292 1977


VELA -6B
S
SHE
12N
7H
INP
0r 0r 0r 1r
24N
8H
1r
40N
9H
1r
49N
11H
1r
52N
13H
VELA -6A
P
TAL
11r 8r
51S 48S
1H 2H
SPH
36S
4H
SHE
23S
5H
3S
6H
VELA -5B
TAL
13r
49S
22H
11r
53S
24H
9r 9r
50S 46S
2H 2H
SPH
28S
4H
VELA -5A
S
SHE
0r
46N
15H
33N
16H
19N
17H
5N
18H
10S
18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

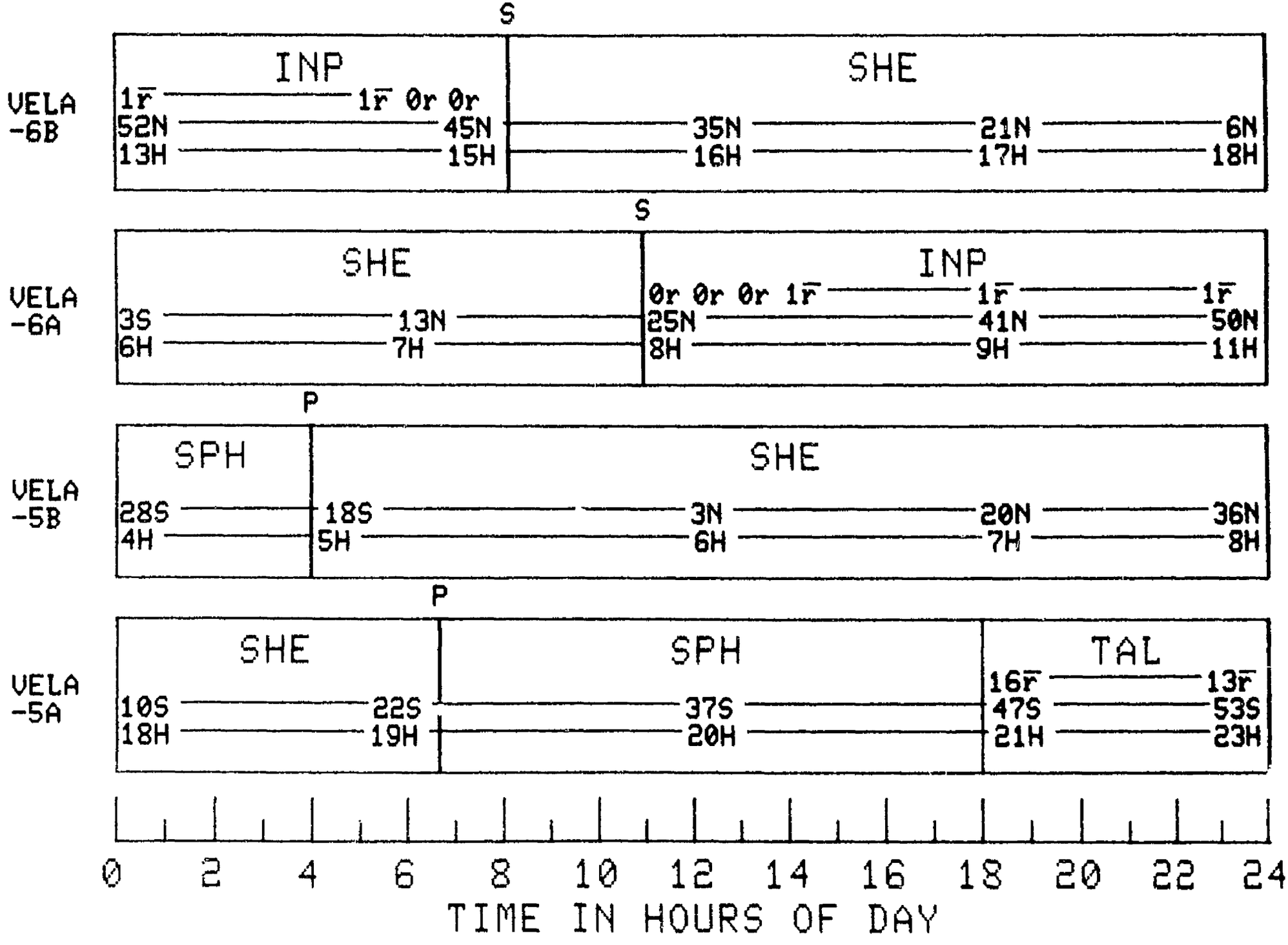
DAY 292 1977


ISEE
-A-B
INP
1r
5r
7r
8r
7r
23N
24N
25N
25N
26N
9H
10H
10H
10H
11H
S
PROG
NOZ-5
INP
SHE
3r
2r
1r
0r
83N
80N
78N
73N
67N
19H
20H
20H
20H
20H
P
HAWK
EYE-1
SHE
40N
32N
47N
68N
67N
16H
17H
18H
17H
16H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

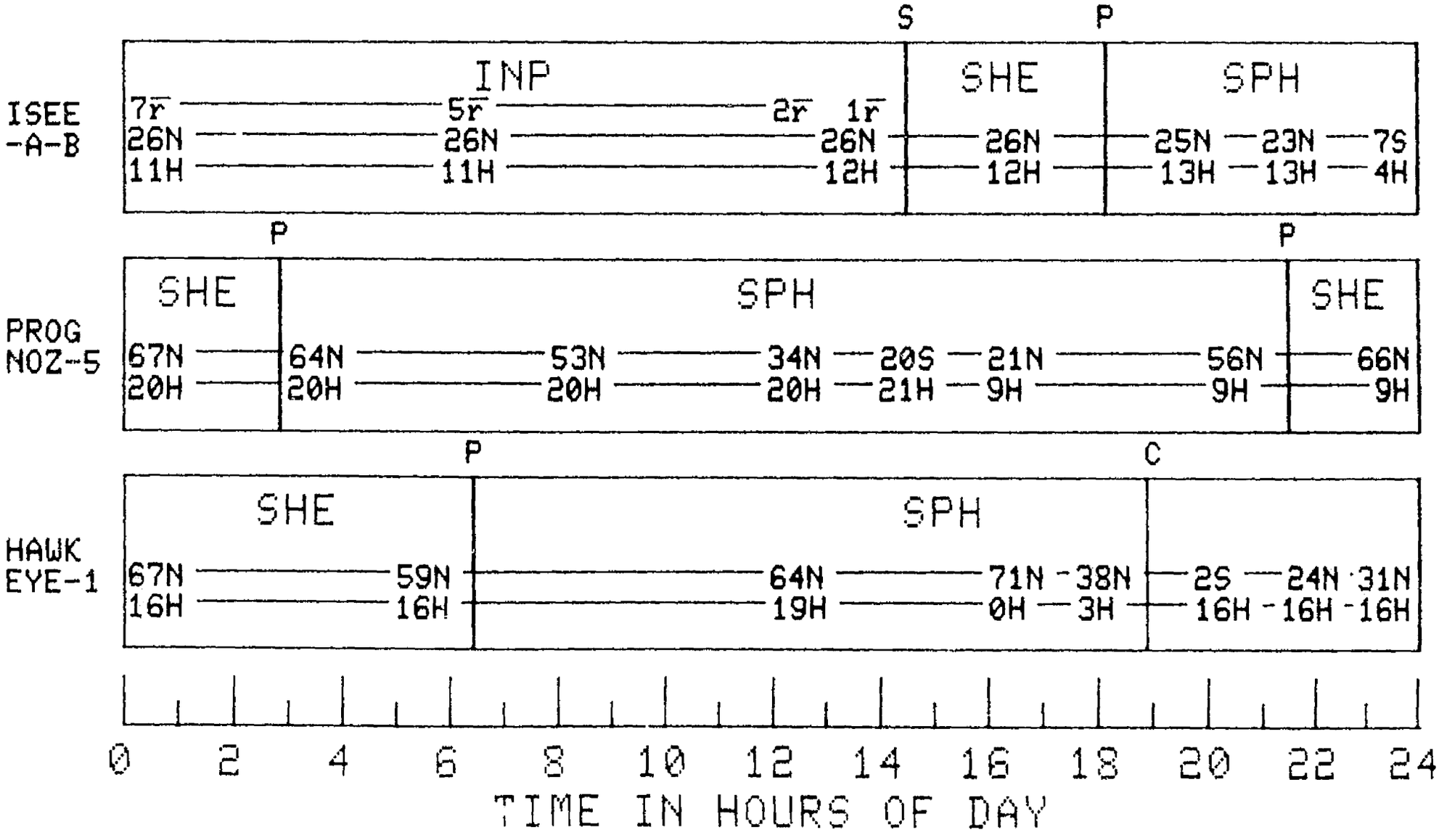
DAY 293 1977


IMP-J
INP
25r̄ 25r̄ 26r̄ 26r̄ 26r̄
29N 31N 33N 34N 35N
9H 9H 10H 10H 11H
P
IMP-H
TAL
SHE
1r̄ 0r 1r 2r 4r 6r 8r 5r
9S 6S 4S 0N 1N
1H 1H 2H 2H 2H
SOL RAD -11B
INP
5r̄ 5r̄ 4r̄ 3r̄ 2r̄
3N 2N 0N 2S 3S
11H 12H 14H 15H 16H
SOL RAD -11A
TAL
SPH
1r 2r 3r 5r 6r 5r 5r
2S 1S 1N 2N 3N 4N
24H 1H 2H 3H 4H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

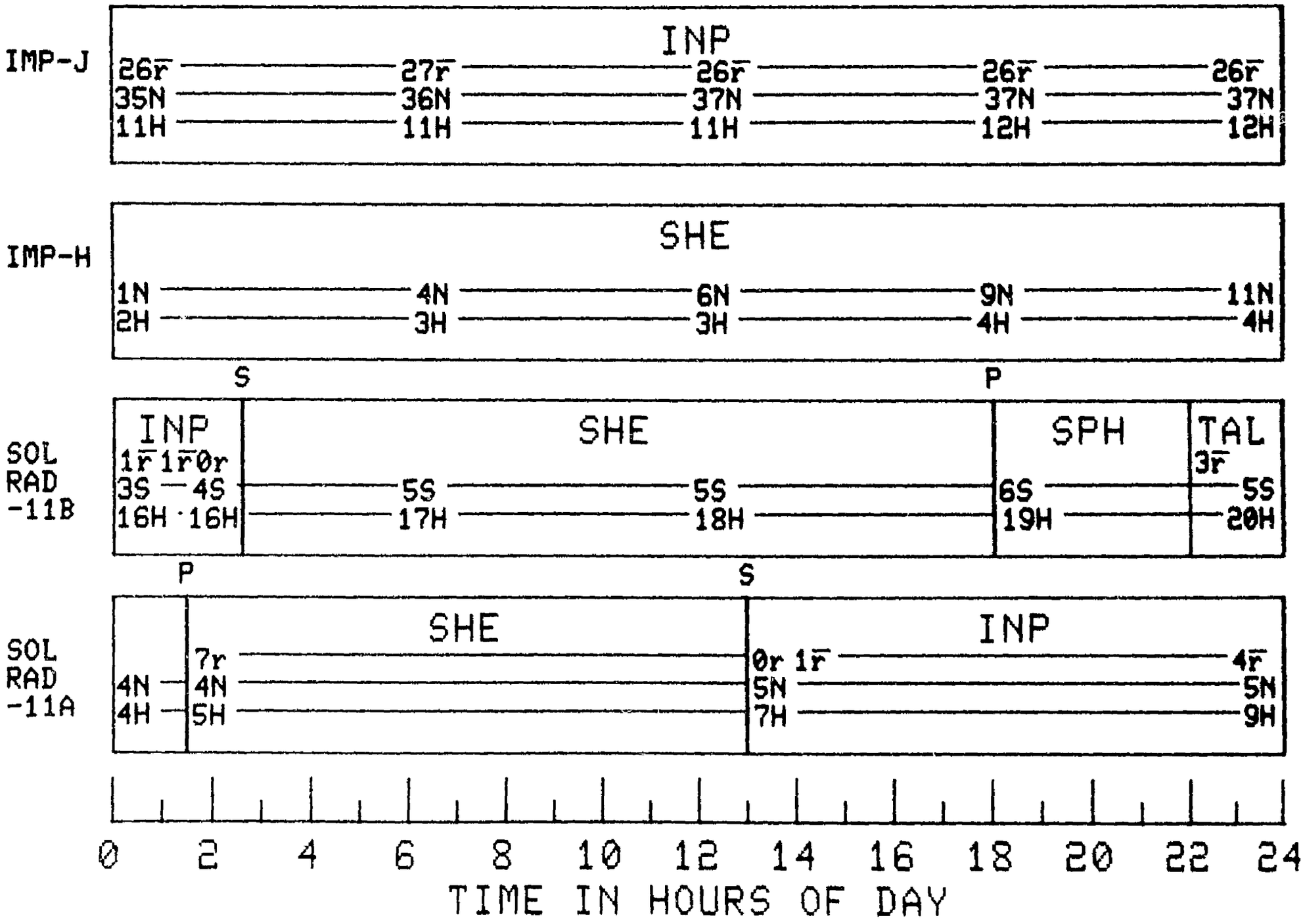
DAY 293 1977

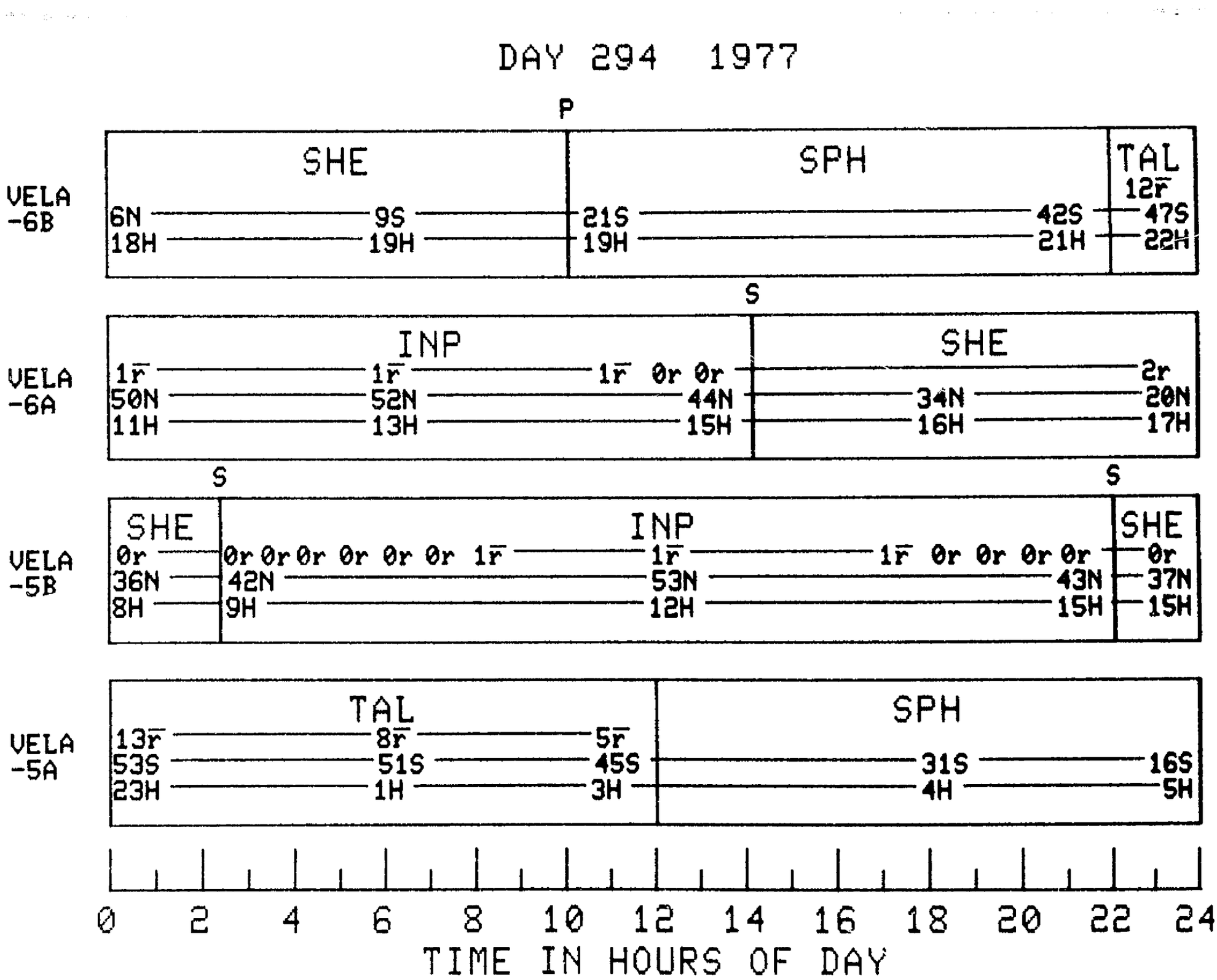

S
INP
SHE
VELA -6B
1r̄ 1r̄ 0r 0r
52N 45N 35N 21N 6N
13H 15H 16H 17H 18H
S
SHE
INP
VELA -6A
0r 0r 0r 1r̄ 1r̄ 1r̄
3S 13N 25N 41N 50N
6H 7H 8H 9H 11H
P
SPH
SHE
VELA -5B
28S 18S 3N 20N 36N
4H 5H 6H 7H 8H
P
SHE
SPH
TAL
VELA -5A
16r̄ 13r̄
10S 22S 37S 47S 53S
18H 19H 20H 21H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 293 1977

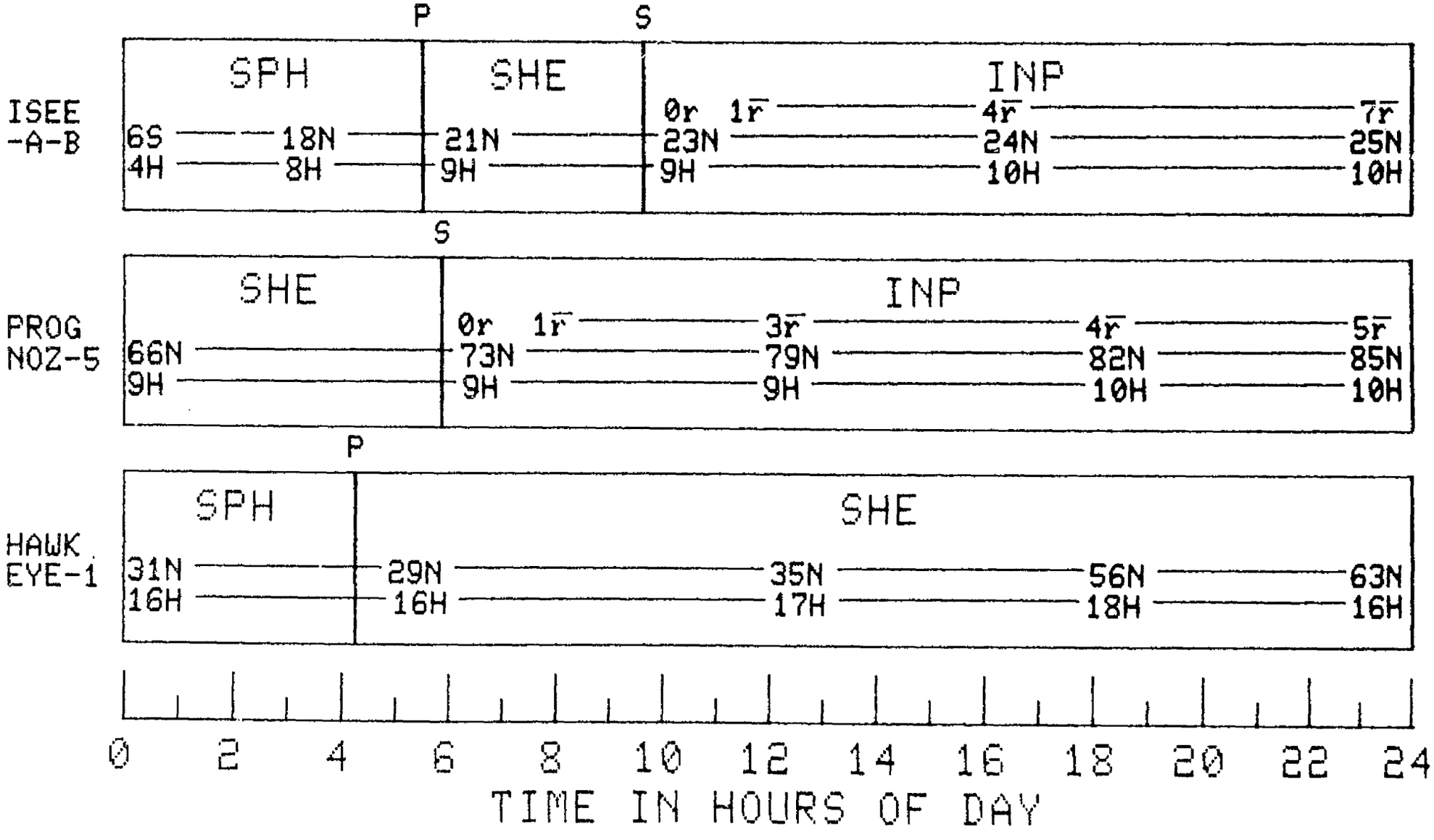

S
P
INP
SHE
SPH
ISEE
-A-B
7r̄ 5r̄ 2r̄ 1r̄
26N 26N 26N 26N 25N 23N 7S
11H 11H 12H 12H 13H 13H 4H
P
P
SHE
SPH
SHE
PROG
NOZ-5
67N 64N 53N 34N 20S 21N 56N 66N
20H 20H 20H 20H 21H 9H 9H 9H
P
C
SHE
SPH
HAWK
EYE-1
67N 59N 64N 71N 38N 2S 24N 31N
16H 16H 19H 0H 3H 16H 16H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 294 1977

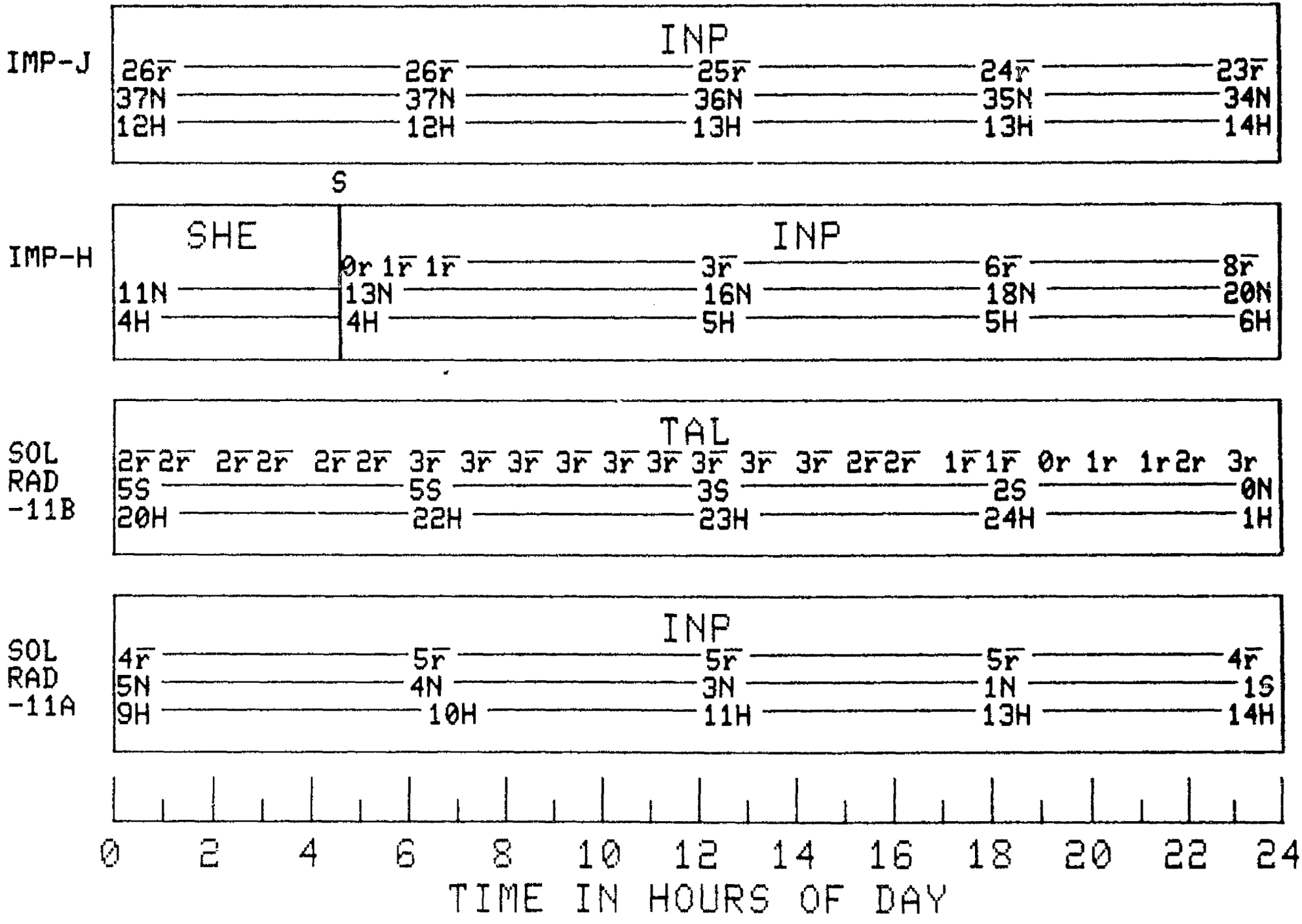

IMP-J
INP
26r 27r 26r 26r 26r
35N 36N 37N 37N 37N
11H 11H 11H 12H 12H
IMP-H
SHE
1N 4N 6N 9N 11N
2H 3H 3H 4H 4H
S
P
SOL RAD -11B
INP
1r 1r 0r
3S 4S
16H 16H
SHE
5S 5S
17H 18H
SPH
6S
19H
TAL
3r
5S
20H
P
S
SOL RAD -11A
SHE
7r
4N 4N
4H 5H
INP
0r 1r 4r
5N 5N
7H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 294 1977
P
VELA -6B
SHE
SPH
TAL
6N 9S 21S 42S 47S
18H 19H 19H 21H 22H
12r
S
VELA -6A
INP
SHE
1r 1r 1r 0r 0r 2r
50N 52N 44N 34N 20N
11H 13H 15H 16H 17H
S
S
VELA -5B
SHE
INP
SHE
0r 0r 0r 0r 0r 0r 1r 1r 1r 0r 0r 0r 0r 0r
36N 42N 53N 43N 37N
8H 9H 12H 15H 15H
VELA -5A
TAL
SPH
13r 8r 5r 31S 16S
53S 51S 45S 4H 5H
23H 1H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

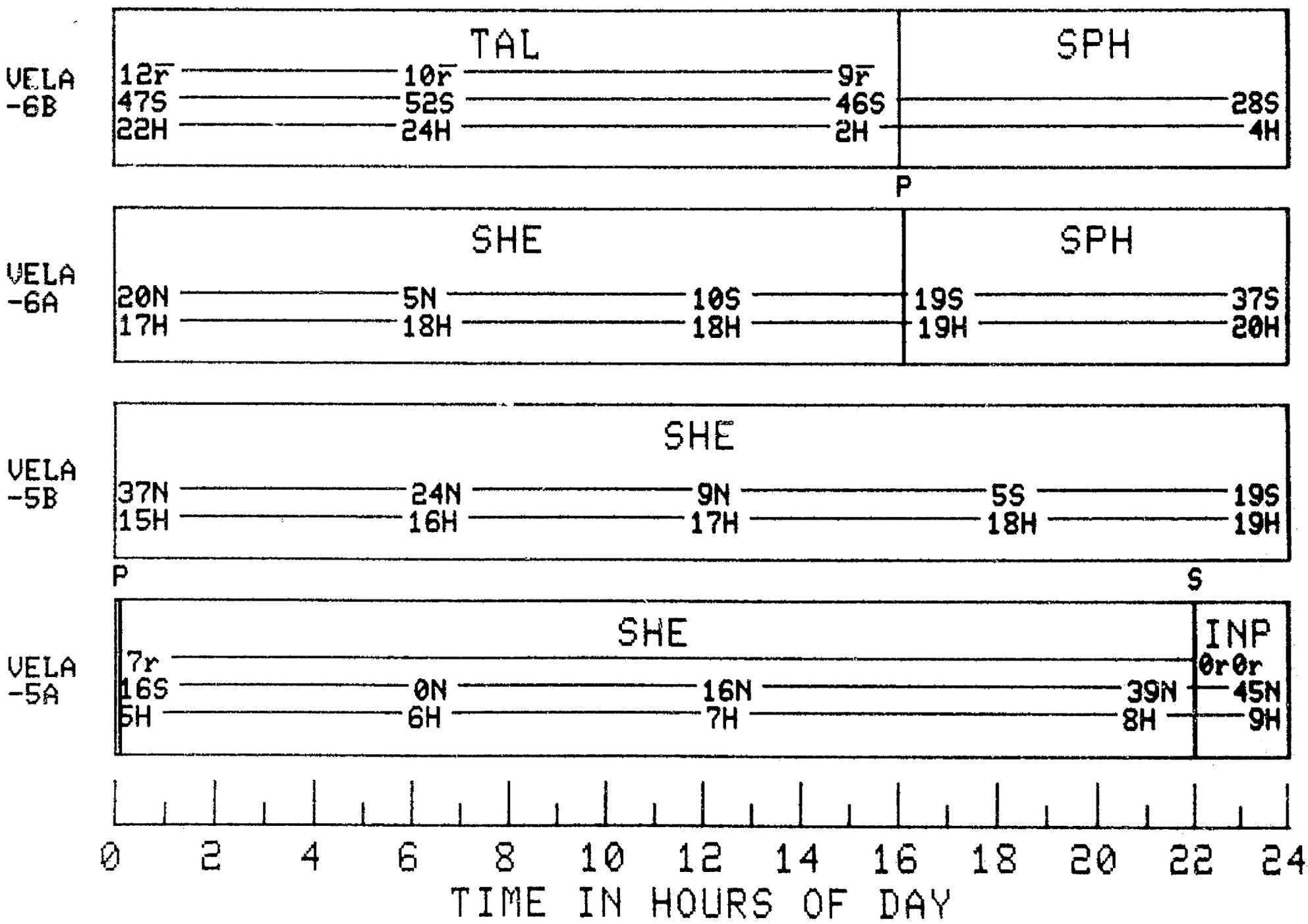
DAY 294 1977


P
S
SPH
SHE
INP
ISEE
-A-B
6S
18N
21N
23N
24N
25N
4H
8H
9H
9H
10H
10H
0r
1r̄
4r̄
7r̄
S
SHE
INP
PROG
NOZ-5
66N
73N
79N
82N
85N
9H
9H
9H
10H
10H
0r
1r̄
3r̄
4r̄
5r̄
P
SPH
SHE
HAWK
EYE-1
31N
29N
35N
56N
63N
16H
16H
17H
18H
16H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 295 1977

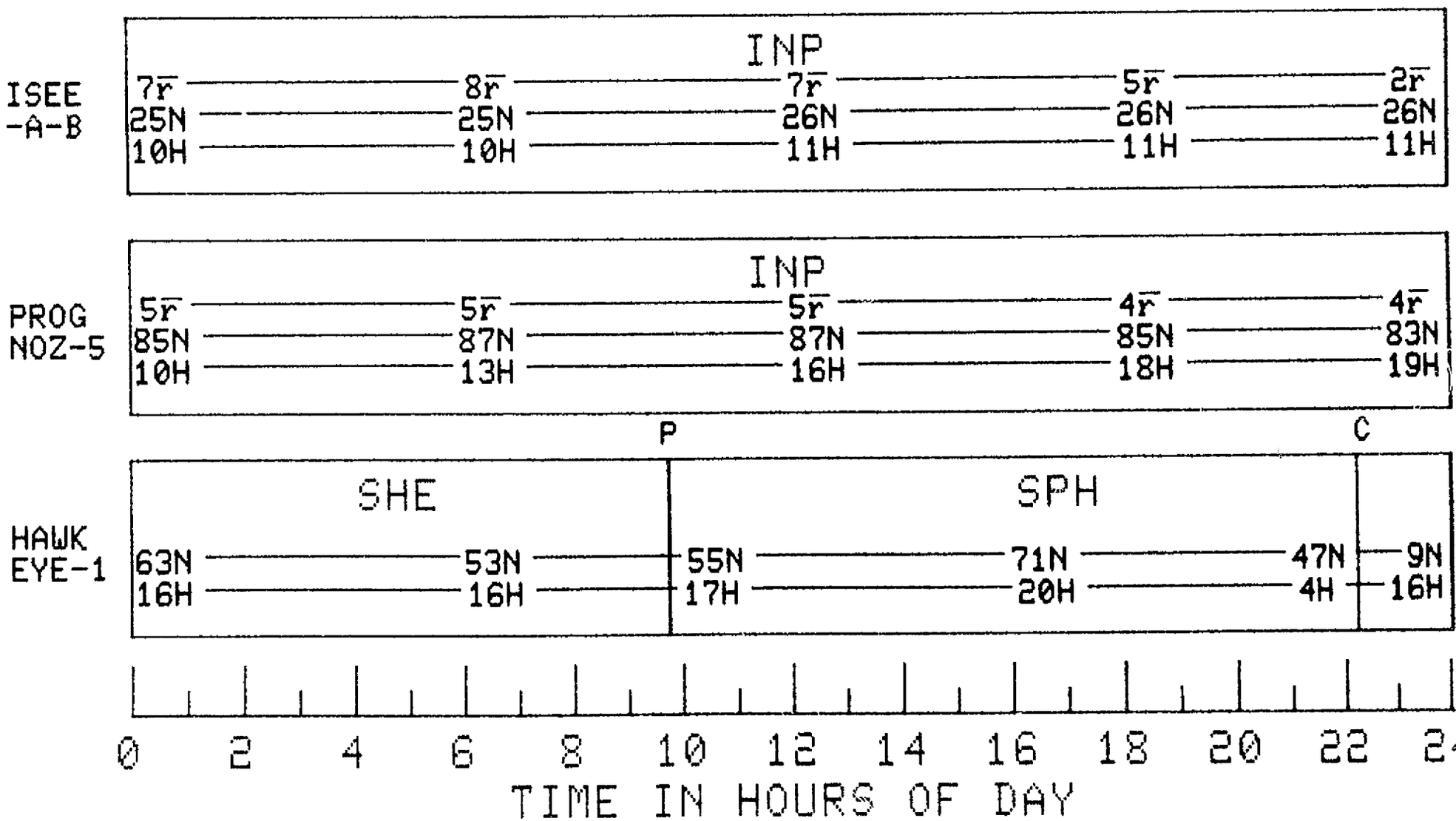

IMP-J
INP
26r 26r 25r 24r 23r
37N 37N 36N 35N 34N
12H 12H 13H 13H 14H
S
IMP-H
SHE
11N
4H
INP
0r 1r 1r 3r 6r 8r
13N 16N 18N 20N
4H 5H 5H 6H
SOL RAD -11B
TAL
2r 2r 2r 2r 2r 2r 3r 3r 3r 3r 3r 3r 3r 3r 3r 2r 2r 1r 1r 0r 1r 1r 2r 3r
5S 5S 3S 2S 0N
20H 22H 23H 24H 1H
SOL RAD -11A
INP
4r 5r 5r 5r 4r
5N 4N 3N 1N 1S
9H 10H 11H 13H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 295 1977

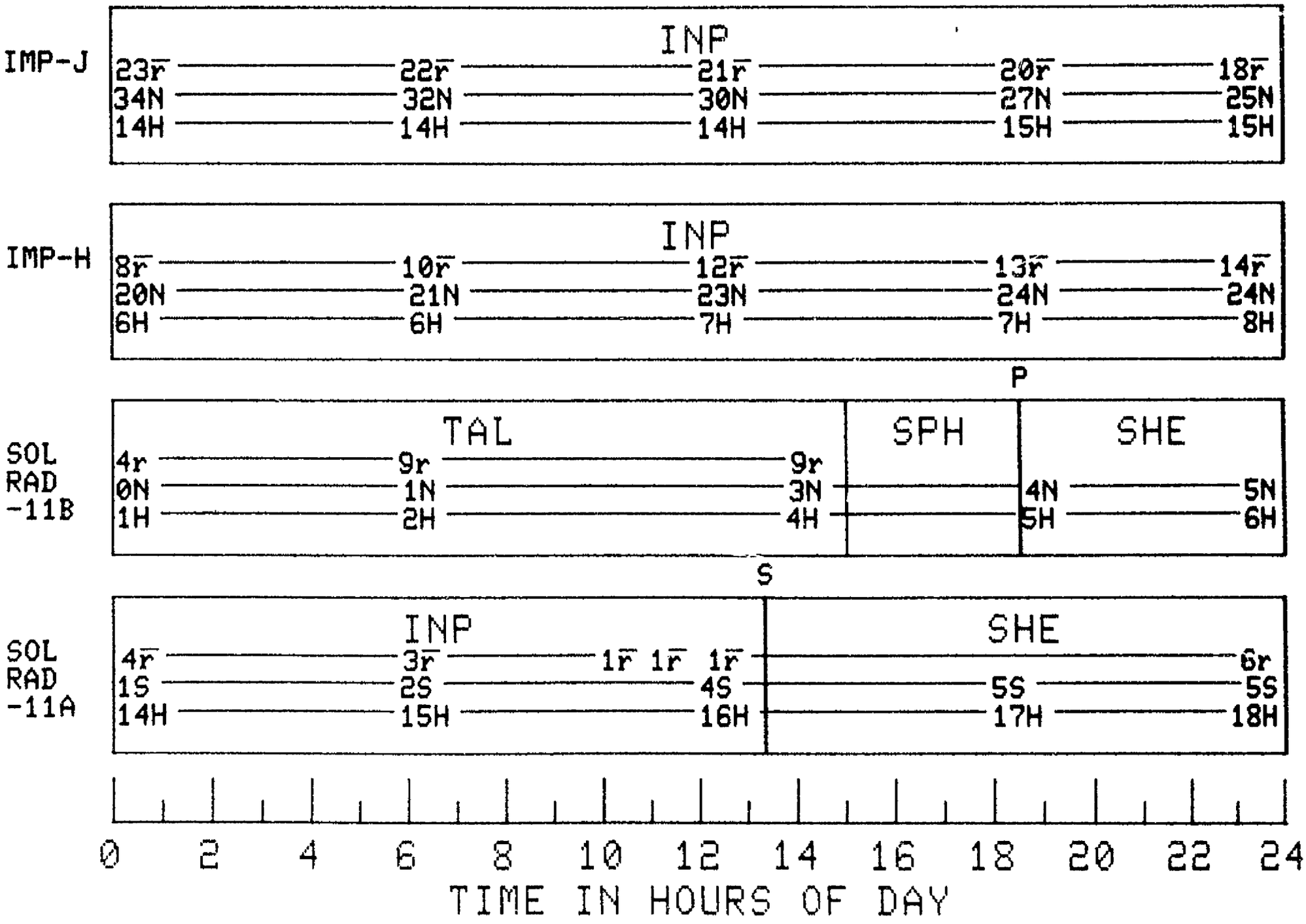

VELA -6B
TAL
SPH
12r 10r 9r
47S 52S 46S 28S
22H 24H 2H 4H
P
VELA -6A
SHE
SPH
20N 5N 10S 19S 37S
17H 18H 18H 19H 20H
VELA -5B
SHE
37N 24N 9N 5S 19S
15H 16H 17H 18H 19H
P
S
VELA -5A
SHE
INP
7r 0r 0r
16S 0N 16N 39N 45N
5H 6H 7H 8H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

C-5

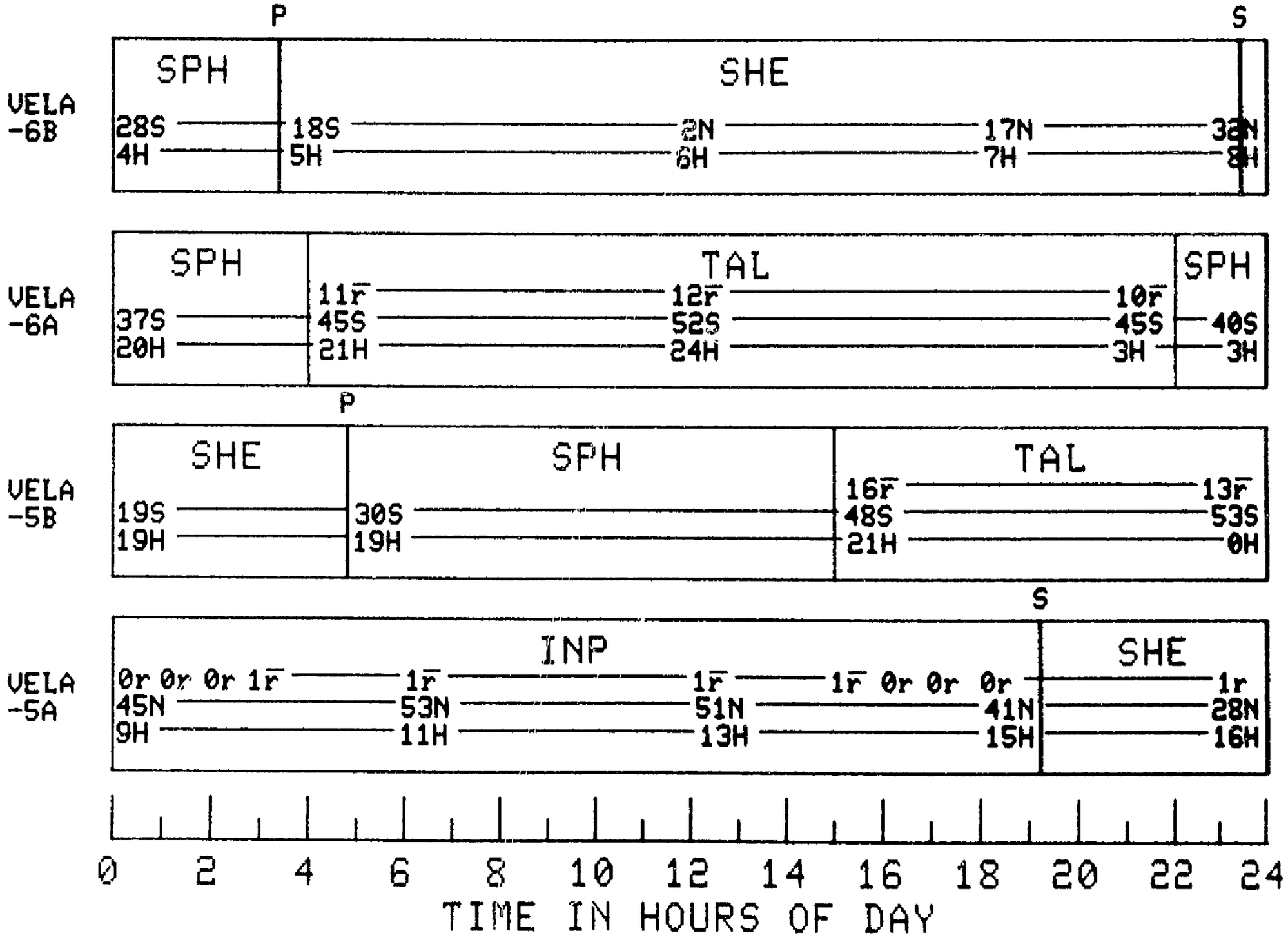
DAY 295 1977



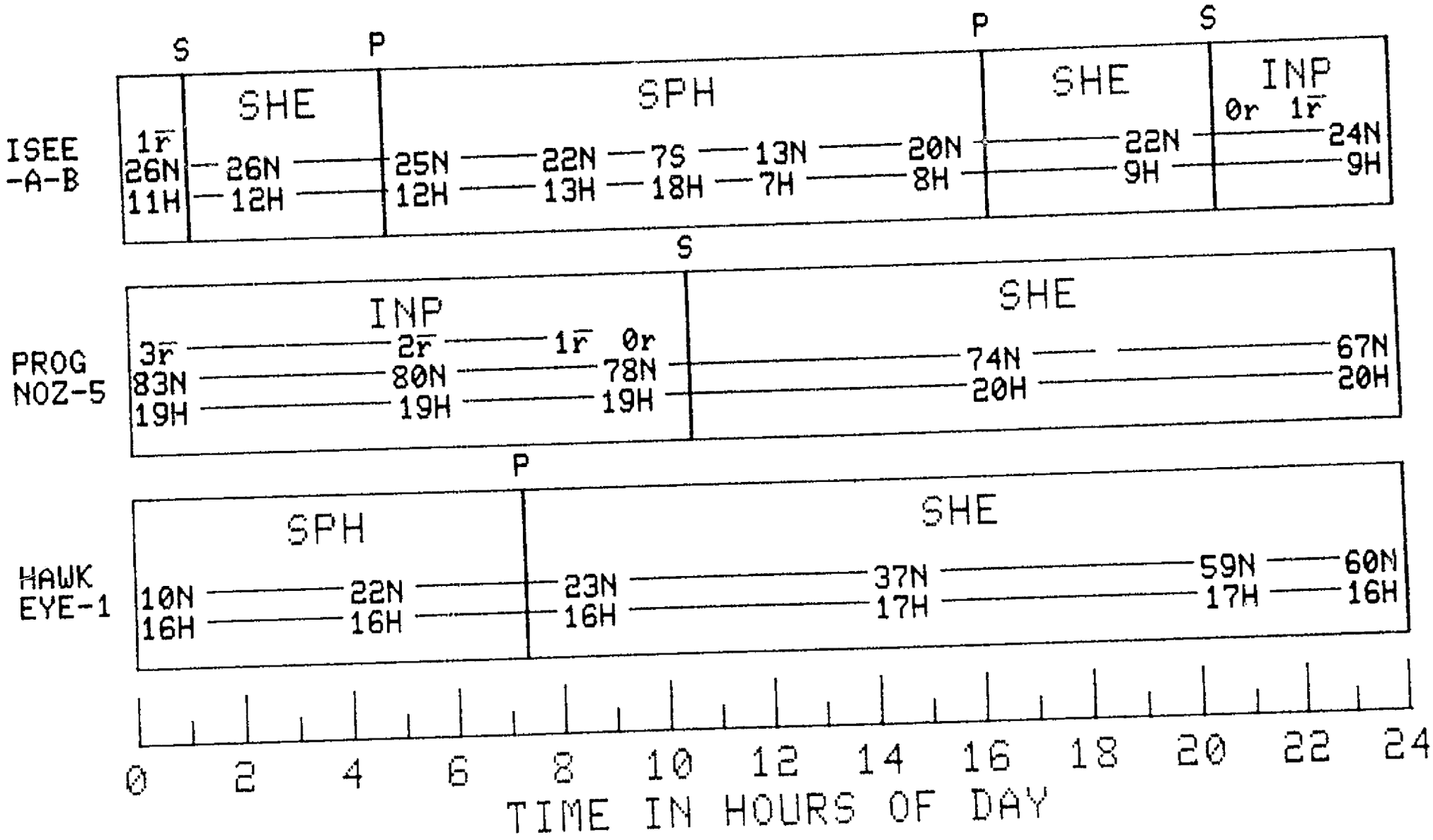
DAY 296 1977


IMP-J
INP
23r 22r 21r 20r 18r
34N 32N 30N 27N 25N
14H 14H 14H 15H 15H
IMP-H
INP
8r 10r 12r 13r 14r
20N 21N 23N 24N 24N
6H 6H 7H 7H 8H
P
SOL RAD -11B
TAL
SPH
SHE
4r 9r 9r
0N 1N 3N 4N 5N
1H 2H 4H 5H 6H
S
SOL RAD -11A
INP
SHE
4r 3r 1r 1r 1r 6r
1S 2S 4S 5S 5S
14H 15H 16H 17H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

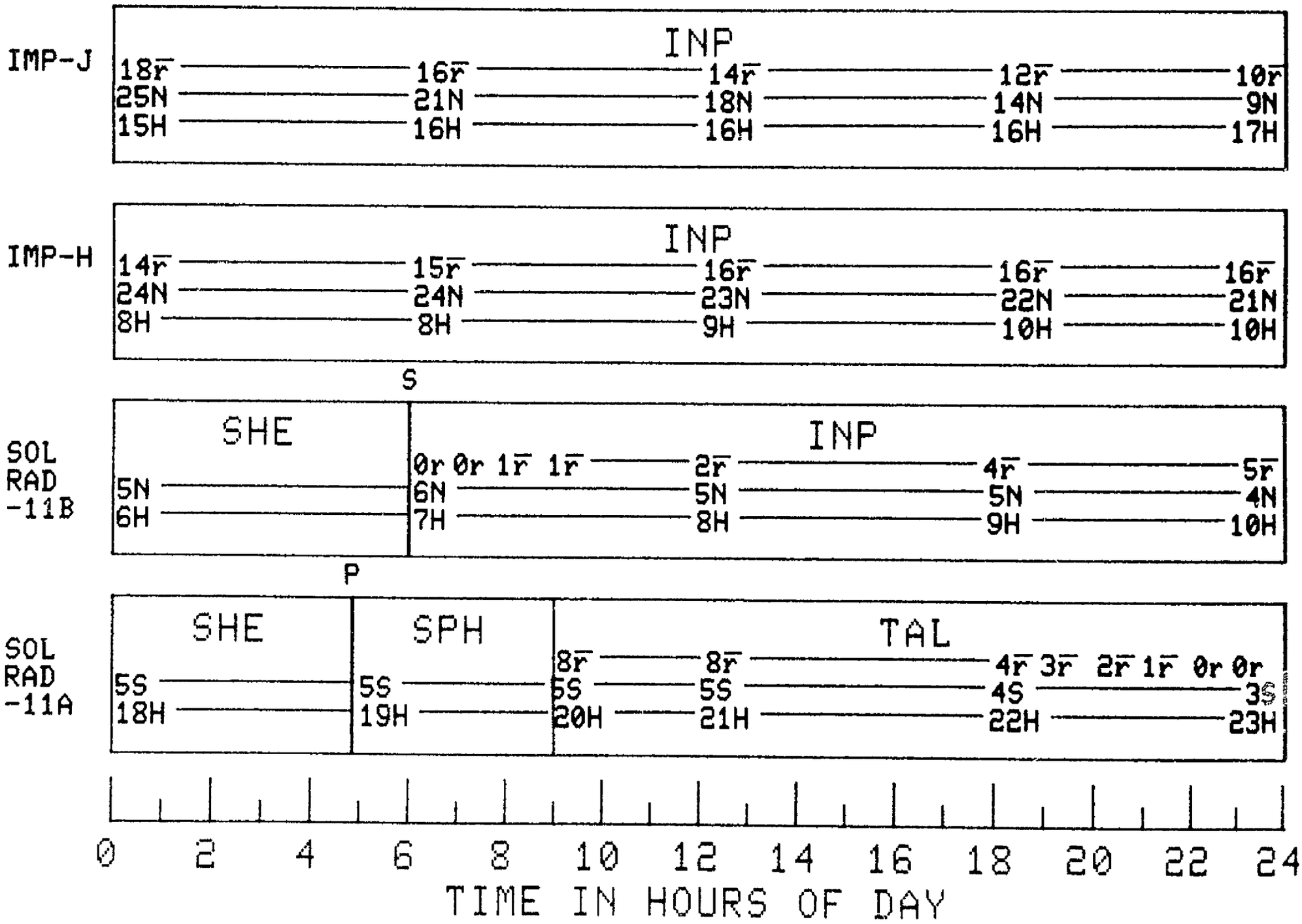
DAY 296 1977


P
S
VELA -6B
SPH
SHE
28S 18S 2N 17N 32N
4H 5H 6H 7H 8H
VELA -6A
SPH
TAL
SPH
37S 11r 12r 10r 40S
20H 45S 52S 45S 3H
21H 24H 3H
P
VELA -5B
SHE
SPH
TAL
19S 30S 16r 13r
19H 19H 48S 53S
21H 0H
S
VELA -5A
INP
SHE
0r 0r 0r 1r 1r 1r 1r 0r 0r 0r 1r
45N 53N 51N 41N 28N
9H 11H 13H 15H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

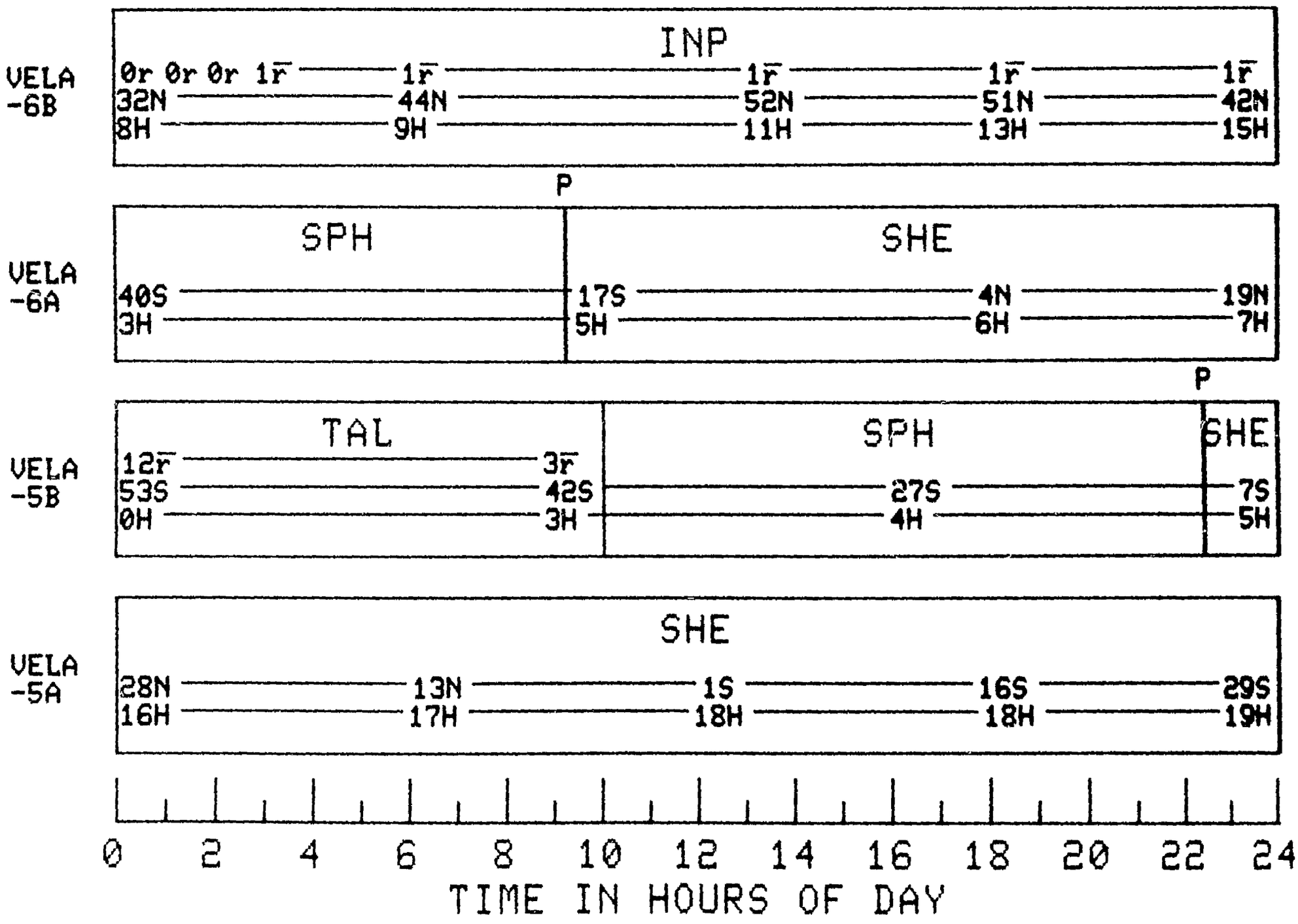
DAY 296 1977


S
P
P
S
SHE
SPH
SHE
INP
ISEE
-A-B
1r̄
26N
11H
26N
12H
25N
12H
22N
13H
7S
18H
13N
7H
20N
8H
22N
9H
0r 1r̄
24N
9H
S
INP
SHE
PROG
NOZ-5
3r̄
83N
19H
2r̄
80N
19H
1r̄ 0r
78N
19H
74N
20H
67N
20H
P
SPH
SHE
HAWK
EYE-1
10N
16H
22N
16H
23N
16H
37N
17H
59N
17H
60N
16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

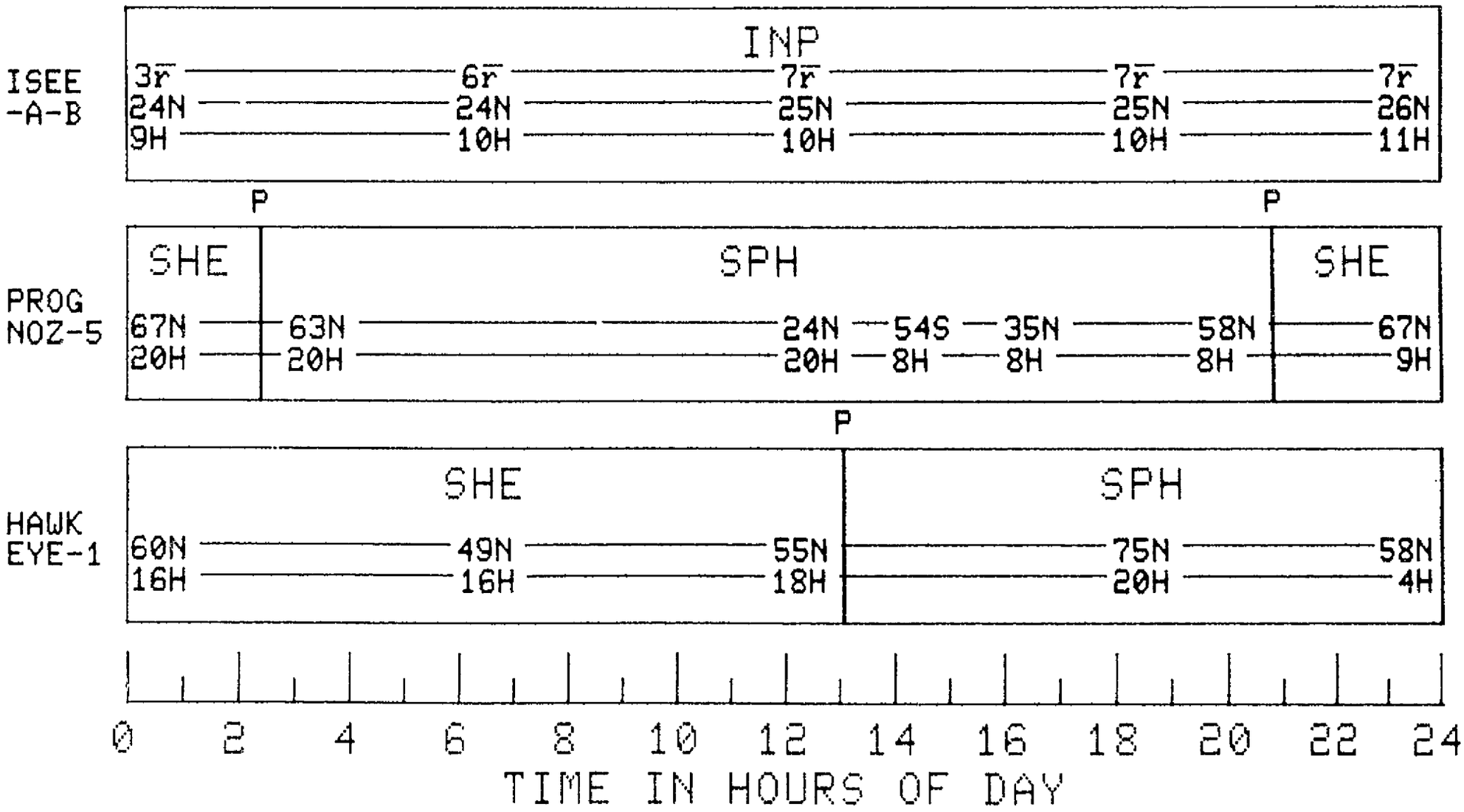
DAY 297 1977


IMP-J
INP
18r 16r 14r 12r 10r
25N 21N 18N 14N 9N
15H 16H 16H 16H 17H
IMP-H
INP
14r 15r 16r 16r 16r
24N 24N 23N 22N 21N
8H 8H 9H 10H 10H
S
SOL RAD -11B
SHE
INP
5N 6N 5N 5N 4N
6H 7H 8H 9H 10H
0r 0r 1r 1r 2r 4r 5r
P
SOL RAD -11A
SHE
SPH
TAL
5S 5S 5S 5S 4S 3S
18H 19H 20H 21H 22H 23H
8r 8r 4r 3r 2r 1r 0r 0r
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

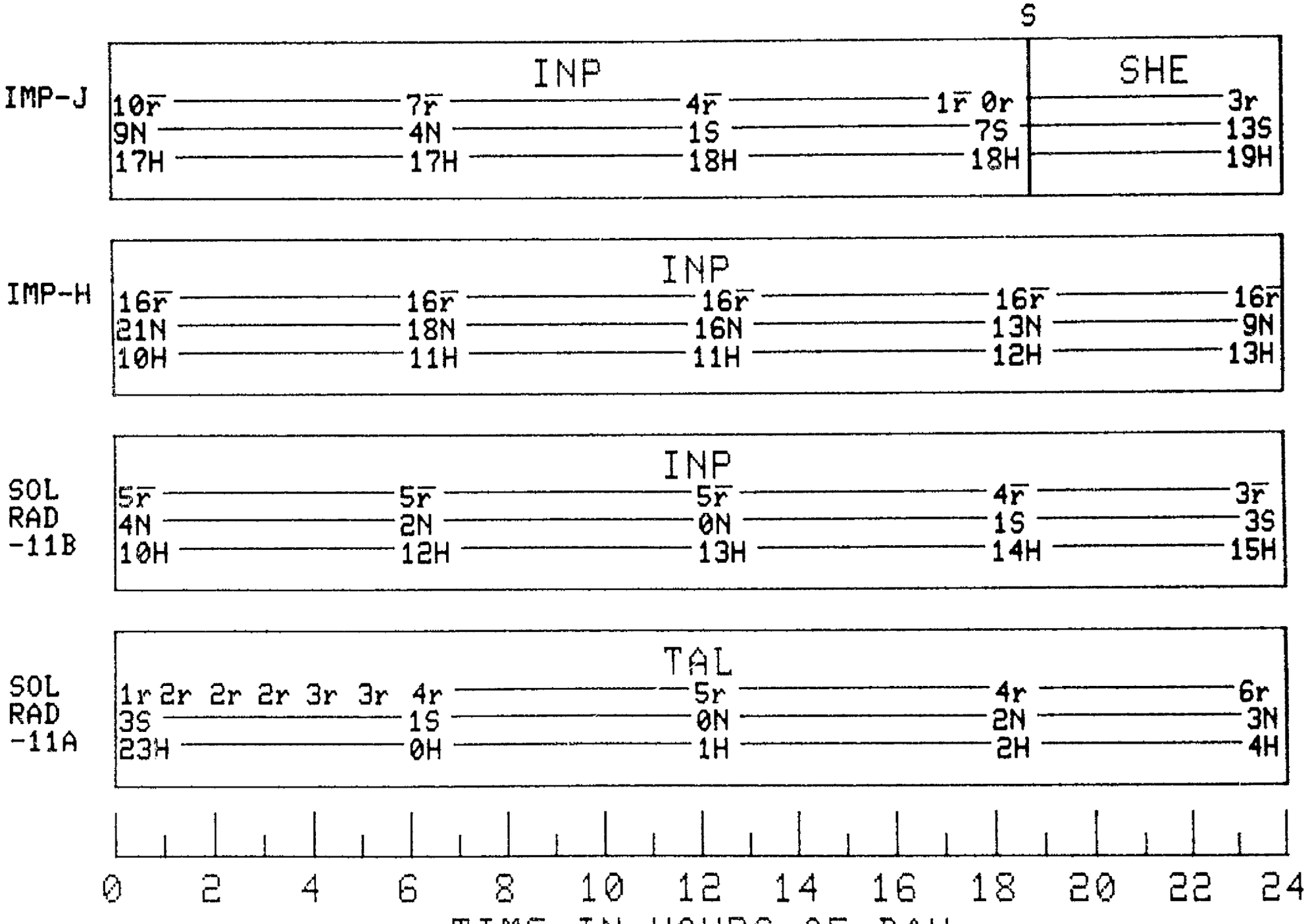
DAY 297 1977


VELA -6B
INP
0r 0r 0r 1r
1r
1r
1r
1r
32N
44N
52N
51N
42N
8H
9H
11H
13H
15H
P
VELA -6A
SPH
SHE
40S
17S
4N
19N
3H
5H
6H
7H
P
VELA -5B
TAL
SPH
SHE
12r
3r
53S
42S
27S
7S
0H
3H
4H
5H
VELA -5A
SHE
28N
13N
1S
16S
29S
16H
17H
18H
18H
19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

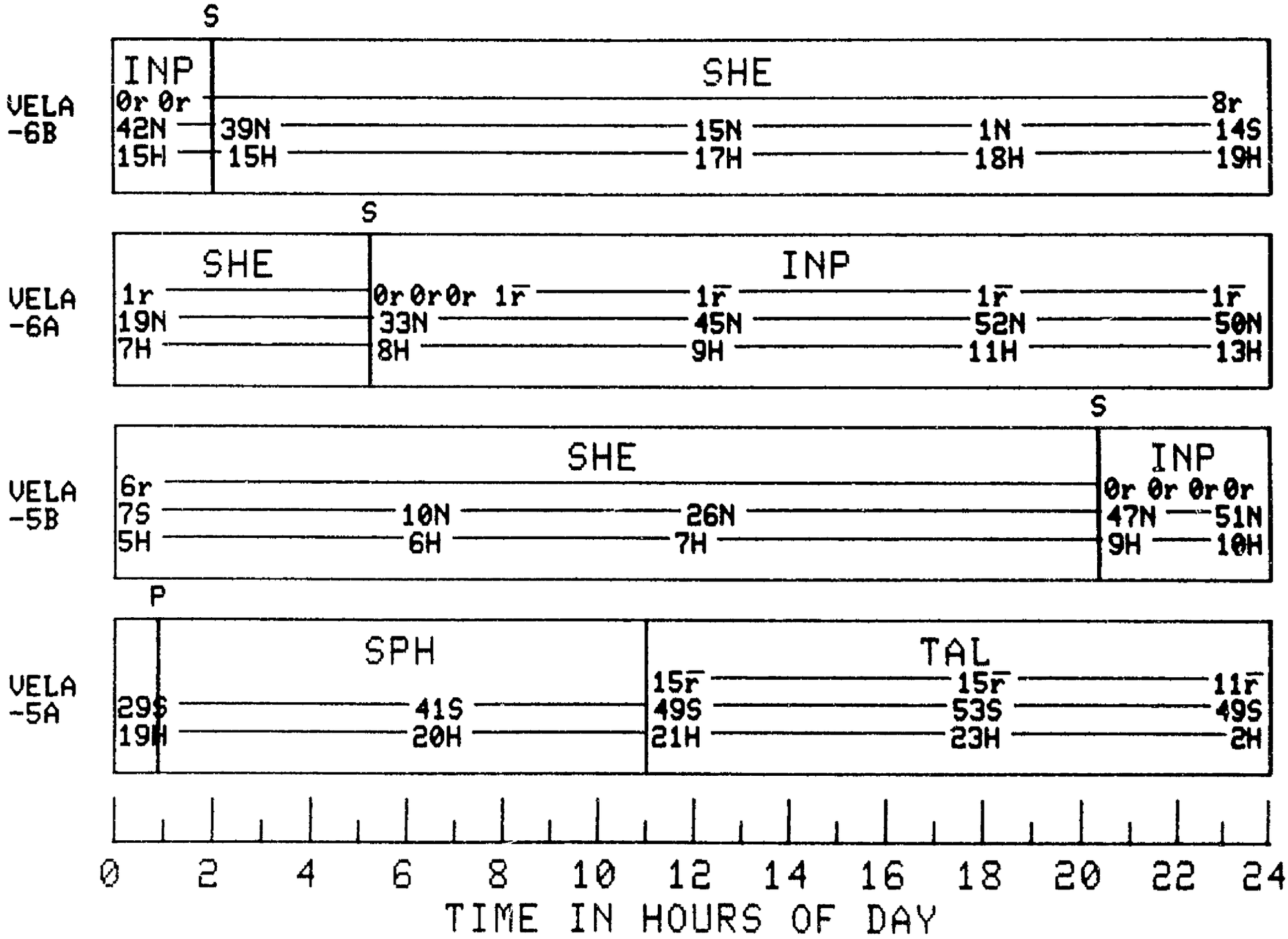
DAY 297 1977


ISEE
-A-B
INP
3r 6r 7r 7r 7r
24N 24N 25N 25N 26N
9H 10H 10H 10H 11H
P
P
PROG
NOZ-5
SHE
SPH
SHE
67N 63N 24N 54S 35N 58N 67N
20H 20H 20H 8H 8H 8H 9H
P
HAWK
EYE-1
SHE
SPH
60N 49N 55N 75N 58N
16H 16H 18H 20H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

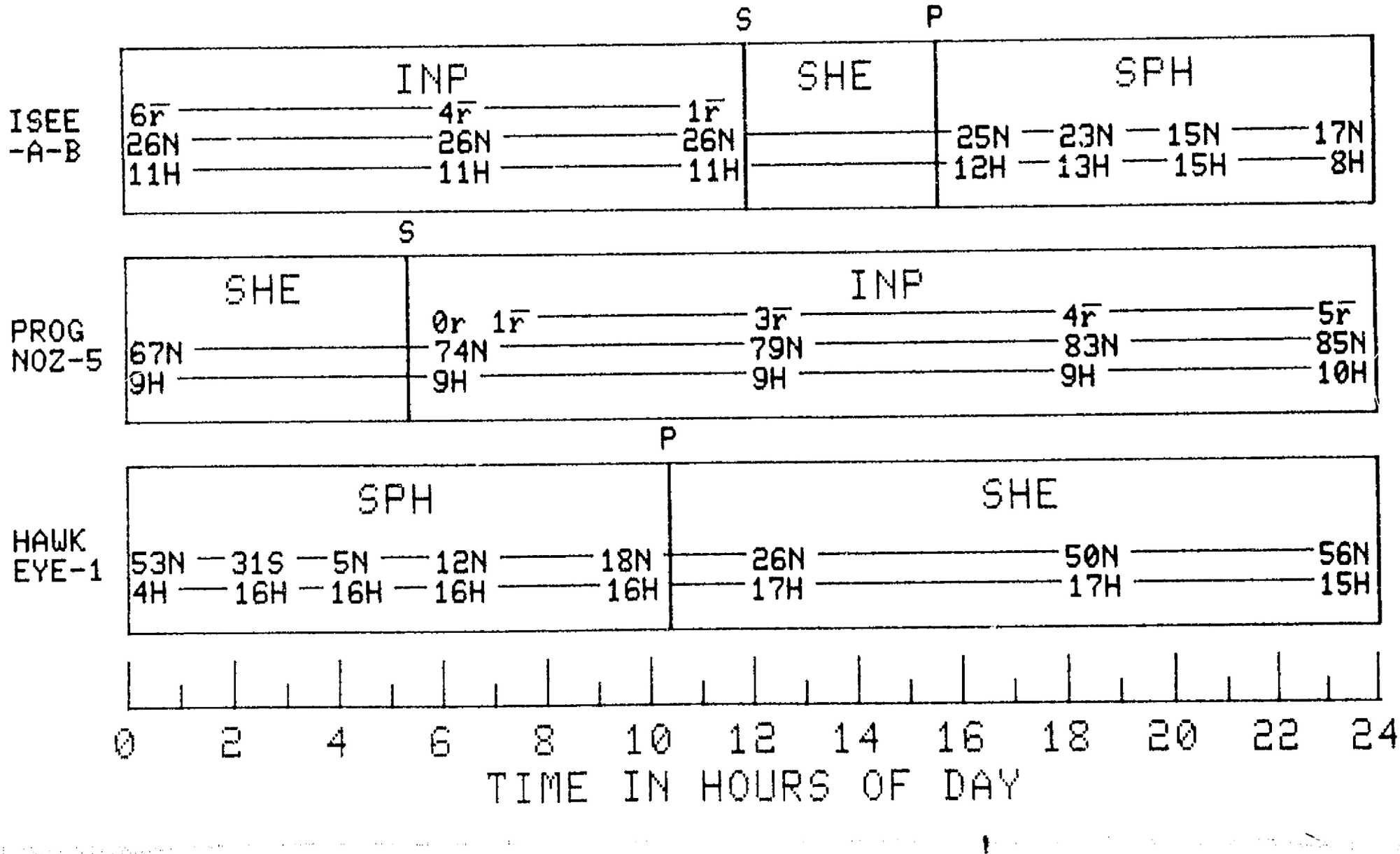
DAY 298 1977

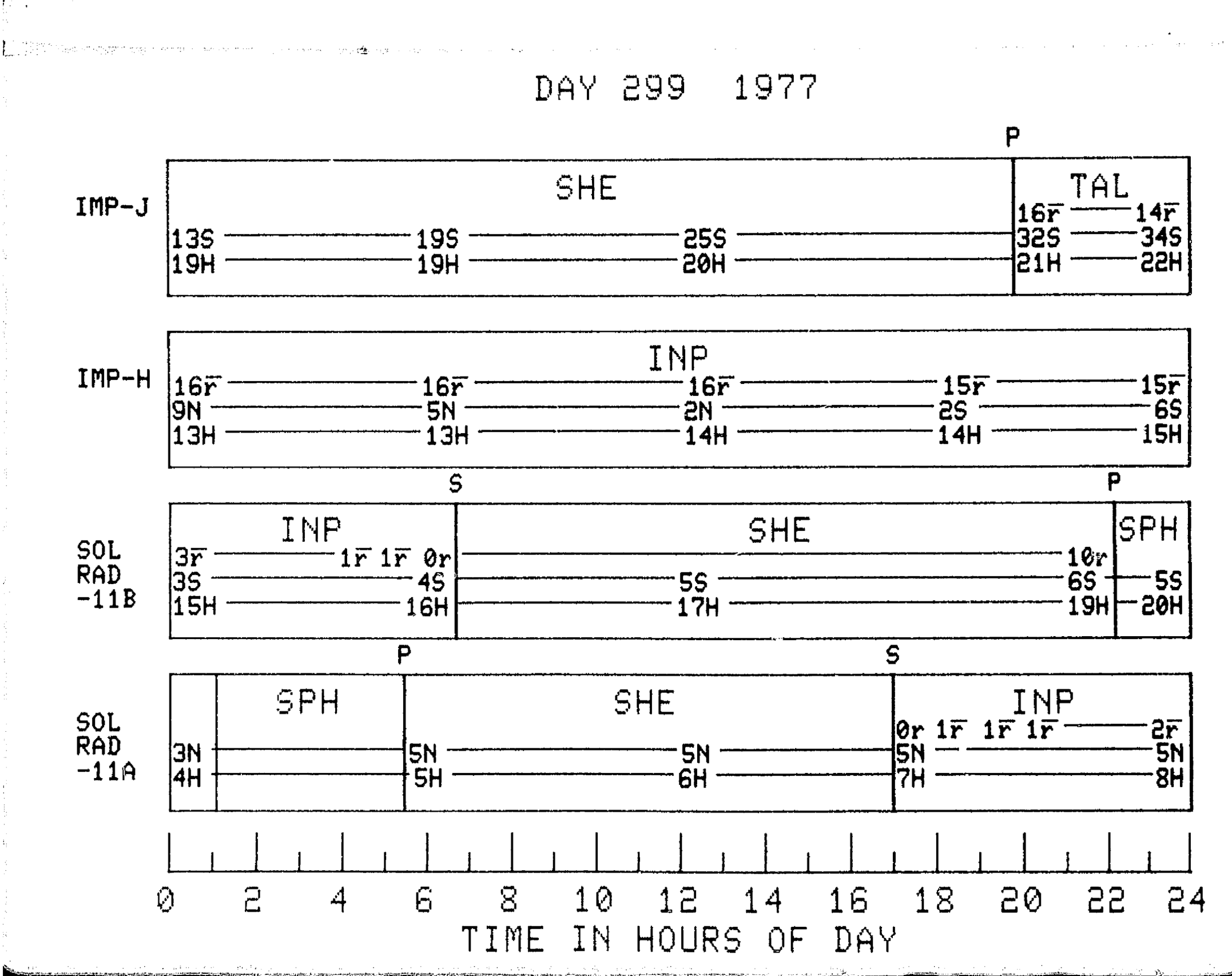

S
IMP-J
INP
SHE
10r 7r 4r 1r 0r 3r
9N 4N 1S 7S 13S
17H 17H 18H 18H 19H
IMP-H
INP
16r 16r 16r 16r 16r
21N 18N 16N 13N 9N
10H 11H 11H 12H 13H
SOL RAD -11B
INP
5r 5r 5r 4r 3r
4N 2N 0N 1S 3S
10H 12H 13H 14H 15H
SOL RAD -11A
TAL
1r 2r 2r 2r 3r 3r 4r 5r 4r 6r
3S 1S 0N 2N 3N
23H 0H 1H 2H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

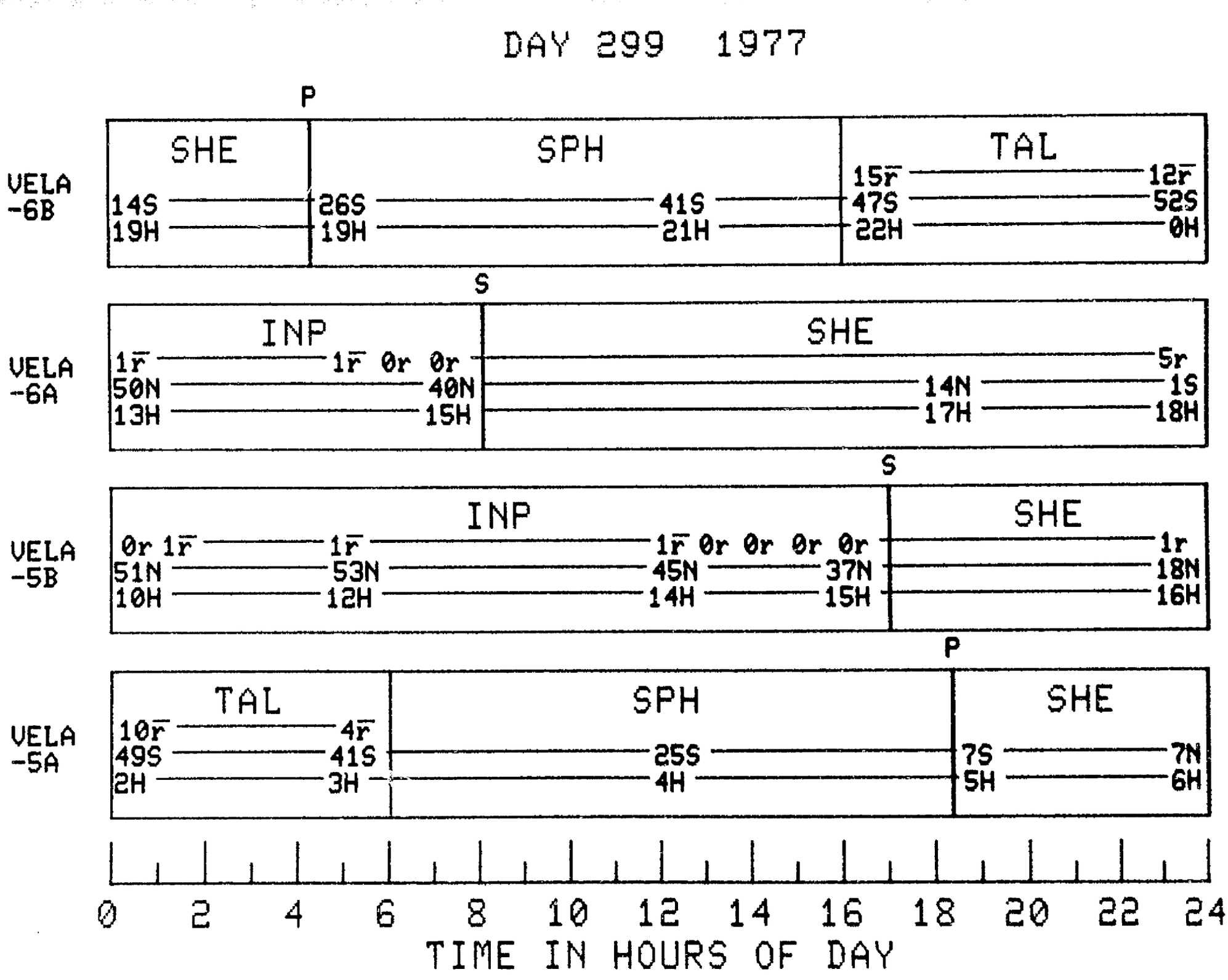
DAY 298 1977


S
INP
SHE
VELA -6B
0r 0r
8r
42N
39N
15N
1N
14S
15H
15H
17H
18H
19H
S
SHE
INP
VELA -6A
1r
0r 0r 0r 1r̄
1r̄
1r̄
1r̄
19N
33N
45N
52N
50N
7H
8H
9H
11H
13H
S
SHE
INP
VELA -5B
6r
0r 0r 0r 0r
7S
10N
26N
47N
51N
5H
6H
7H
9H
10H
P
SPH
TAL
VELA -5A
15r̄
15r̄
11r̄
29S
41S
49S
53S
49S
19H
20H
21H
23H
2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

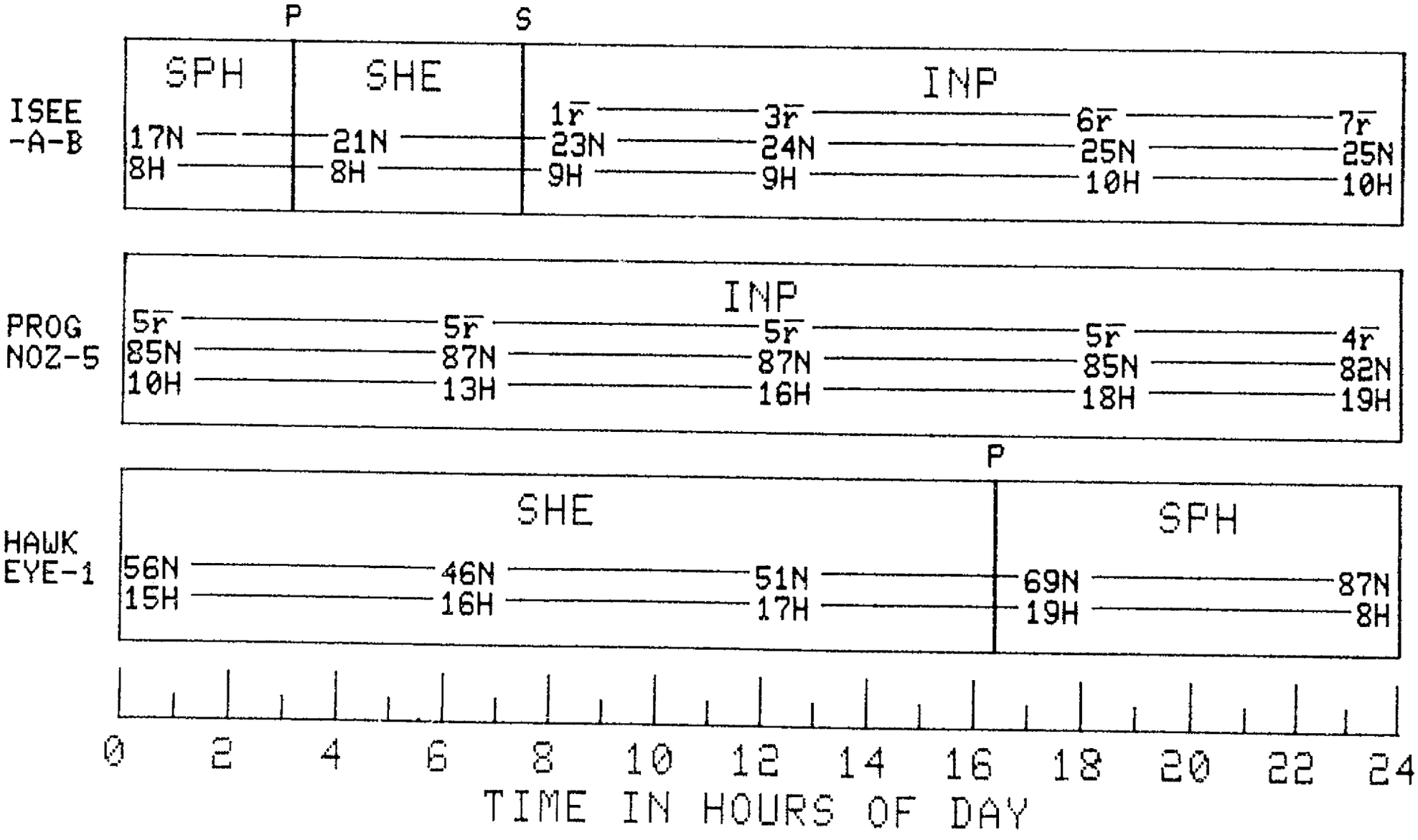
DAY 298 1977


S
P
INP
SHE
SPH
ISEE
-A-B
6r
4r
1r
26N
26N
26N
11H
11H
11H
25N
23N
15N
17N
12H
13H
15H
8H
S
SHE
INP
PROG
NOZ-5
0r
1r
3r
4r
5r
67N
74N
79N
83N
85N
9H
9H
9H
9H
10H
P
SPH
SHE
HAWK
EYE-1
53N
31S
5N
12N
18N
26N
50N
56N
4H
16H
16H
16H
16H
17H
17H
15H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

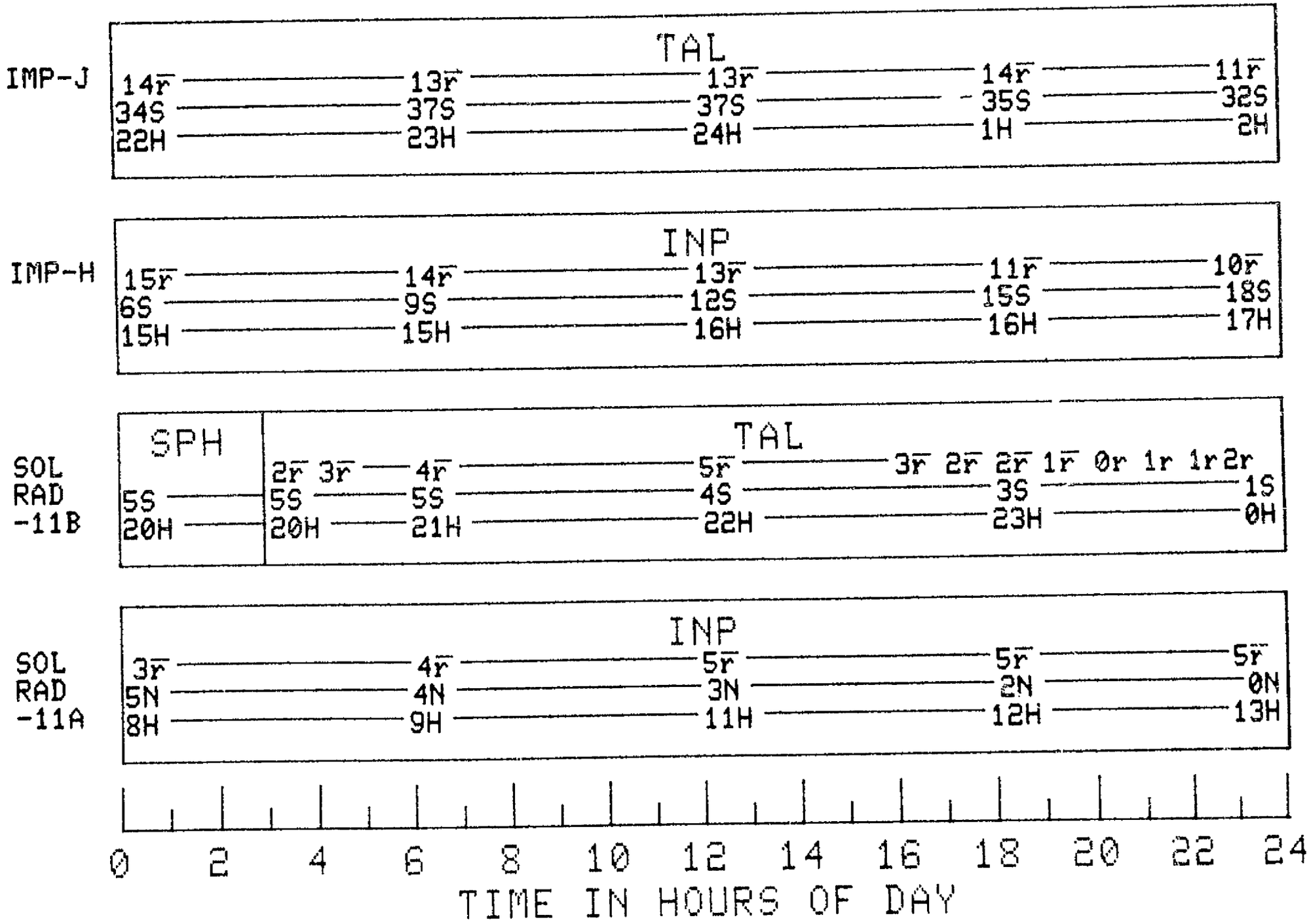

DAY 299 1977
IMP-J
P
SHE
TAL
13S 19S 25S
19H 19H 20H
16r̄ 14r̄
32S 34S
21H 22H
IMP-H
INP
16r̄ 16r̄ 16r̄ 15r̄ 15r̄
9N 5N 2N 2S 6S
13H 13H 14H 14H 15H
SOL RAD -11B
S
P
INP
SHE
SPH
3r̄ 1r̄ 1r̄ 0r
3S 4S
15H 16H
10r
5S
6S 5S
17H
19H 20H
SOL RAD -11A
P
S
SPH
SHE
INP
3N
4H
5N 5N
5H 6H
0r 1r̄ 1r̄ 1r̄ 2r̄
5N 5N
7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 299 1977
P
SHE
SPH
TAL
VELA -6B
14S 19H
26S 19H
41S 21H
15r 47S 22H
12r 52S 0H
S
INP
SHE
VELA -6A
1r 50N 13H
1r 0r 0r 40N 15H
5r 14N 17H
1S 18H
S
INP
SHE
VELA -5B
0r 1r 51N 10H
1r 53N 12H
1r 0r 0r 0r 45N 14H
37N 15H
1r 18N 16H
P
TAL
SPH
SHE
VELA -5A
10r 49S 2H
4r 41S 3H
25S 4H
7S 5H
7N 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

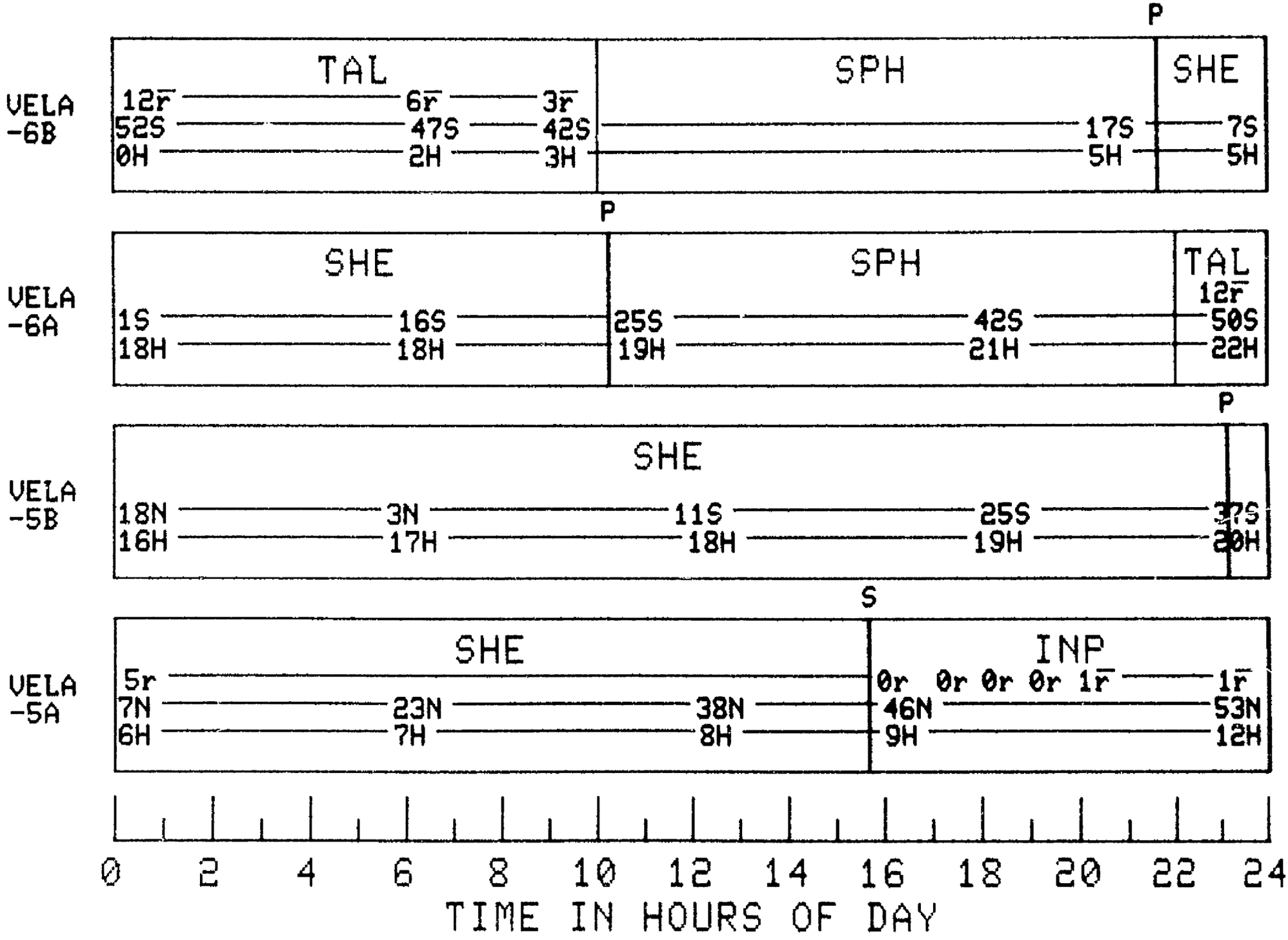
DAY 299 1977


P
S
SPH
SHE
INP
ISEE
-A-B
17N
8H
21N
8H
1r
23N
9H
3r
24N
9H
6r
25N
10H
7r
25N
10H
INP
PROG
NOZ-5
5r
85N
10H
5r
87N
13H
5r
87N
16H
5r
85N
18H
4r
82N
19H
P
SHE
SPH
HAWK
EYE-1
56N
15H
46N
16H
51N
17H
69N
19H
87N
8H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

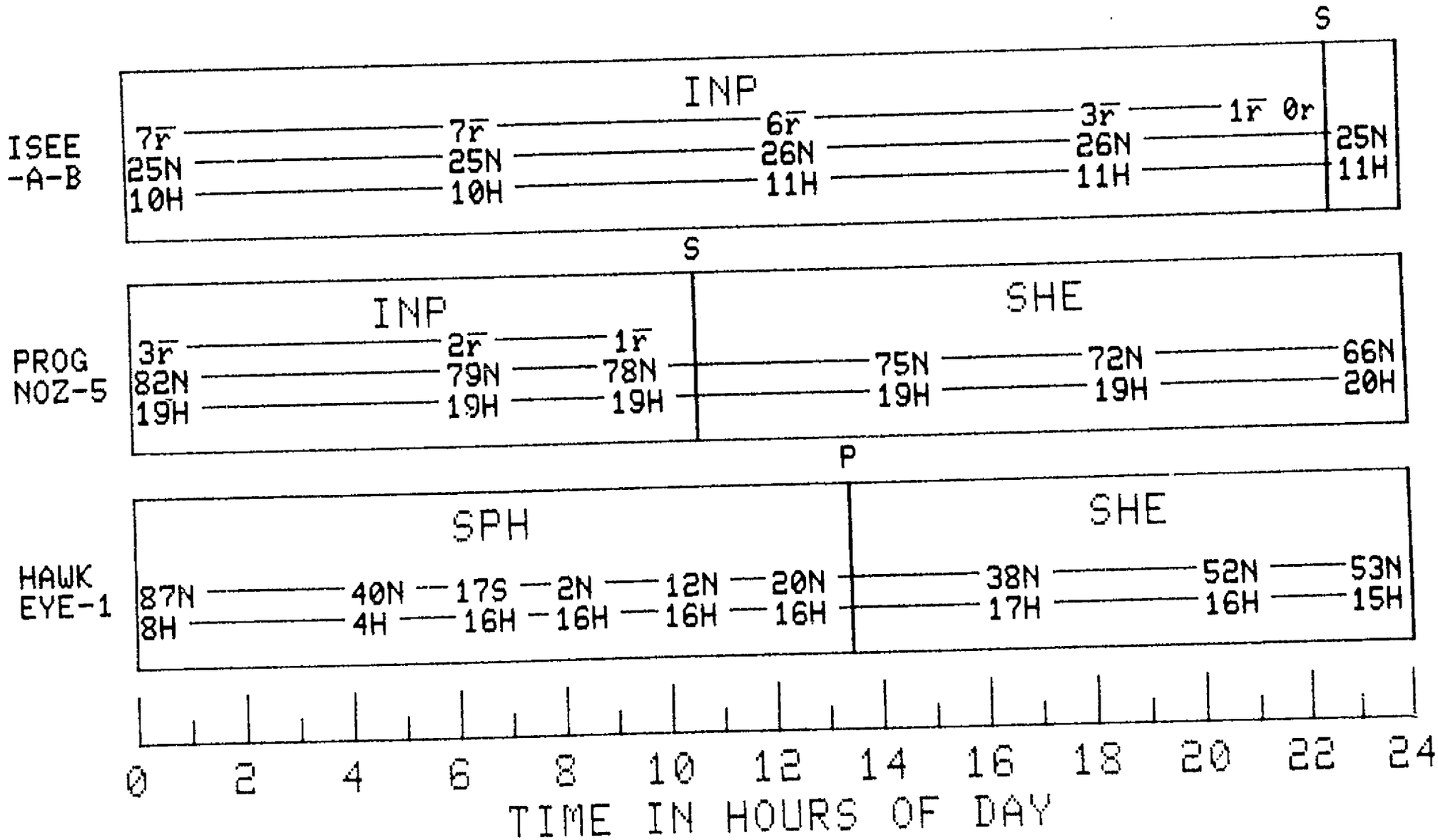
DAY 300 1977

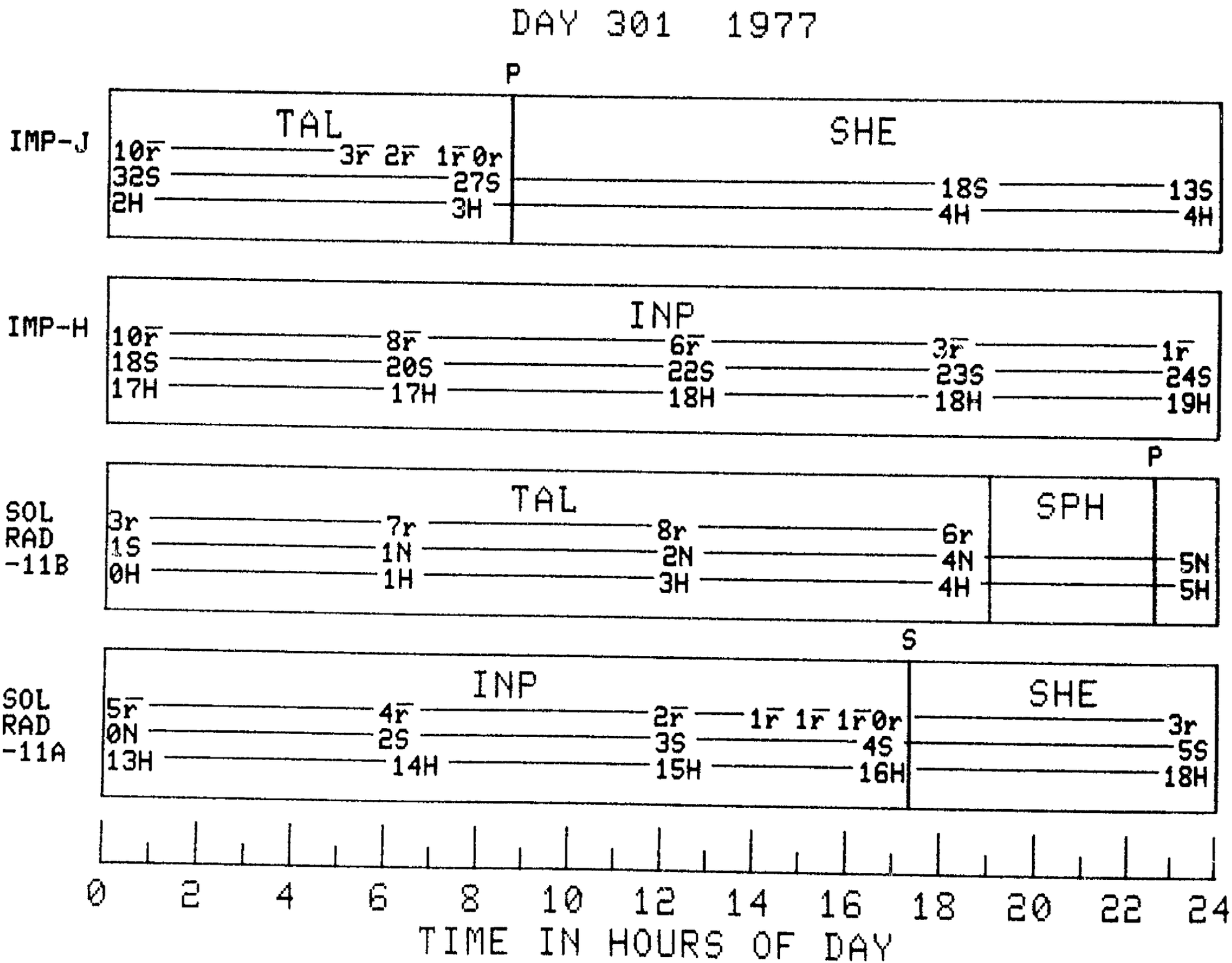

IMP-J
TAL
14r 13r 13r 14r 11r
34S 37S 37S 35S 32S
22H 23H 24H 1H 2H
IMP-H
INP
15r 14r 13r 11r 10r
6S 9S 12S 15S 18S
15H 15H 16H 16H 17H
SOL RAD -11B
SPH
5S
20H
TAL
2r 3r 4r 5r 3r 2r 2r 1r 0r 1r 1r 2r
5S 5S 4S 3S 1S
20H 21H 22H 23H 0H
SOL RAD -11A
INP
3r 4r 5r 5r 5r
5N 4N 3N 2N 0N
8H 9H 11H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 300 1977

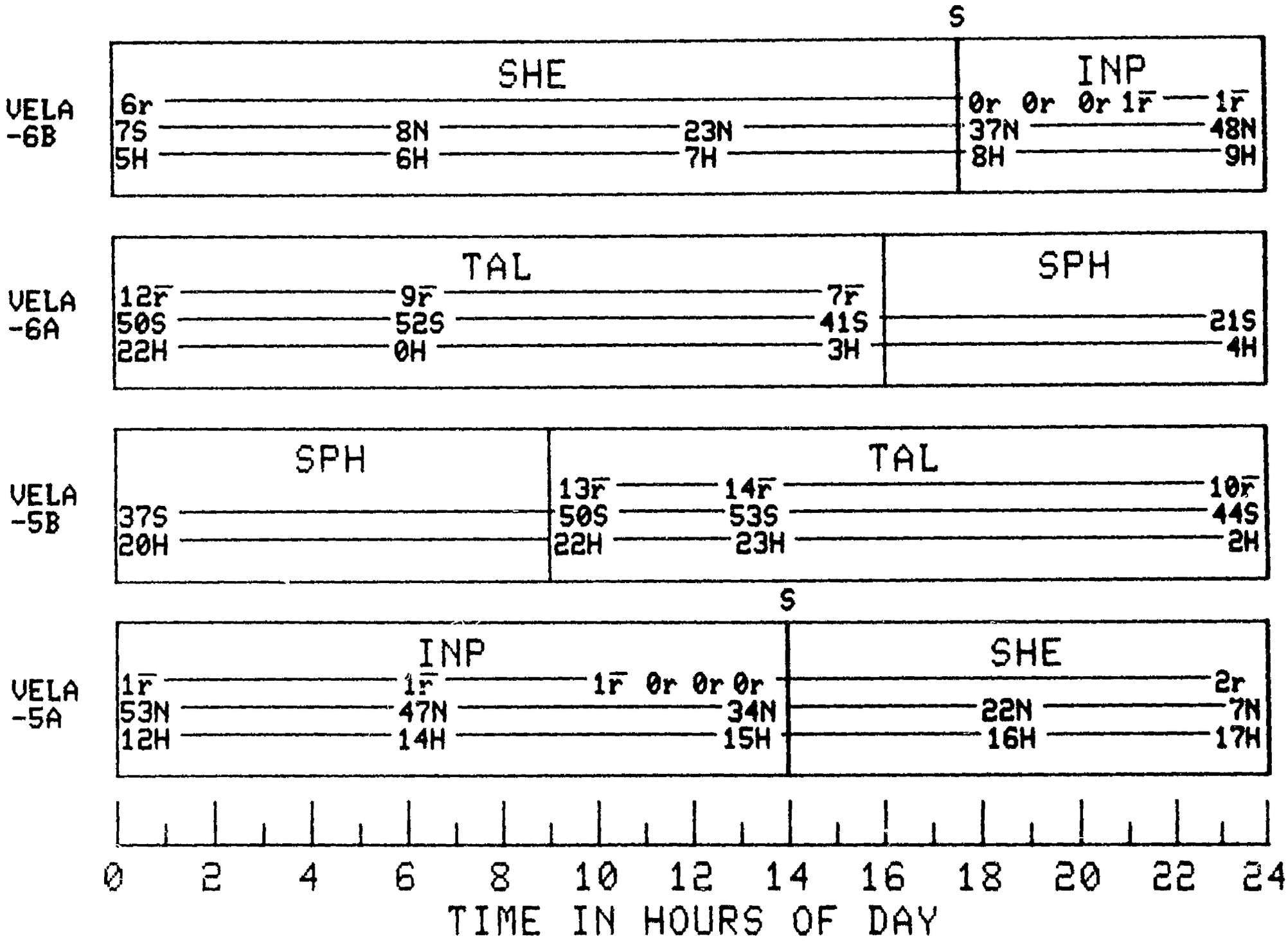

VELA -6B
TAL
SPH
SHE
P
12r̄ 6r̄ 3r̄
52S 47S 42S 17S 7S
0H 2H 3H 5H 5H
VELA -6A
SHE
SPH
TAL
P
12r̄
1S 16S 25S 42S 50S
18H 18H 19H 21H 22H
VELA -5B
SHE
P
18N 3N 11S 25S 37S
16H 17H 18H 19H 20H
VELA -5A
SHE
INP
S
5r 0r 0r 0r 0r 1r̄ 1r̄
7N 23N 38N 46N 53N
6H 7H 8H 9H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 300 1977

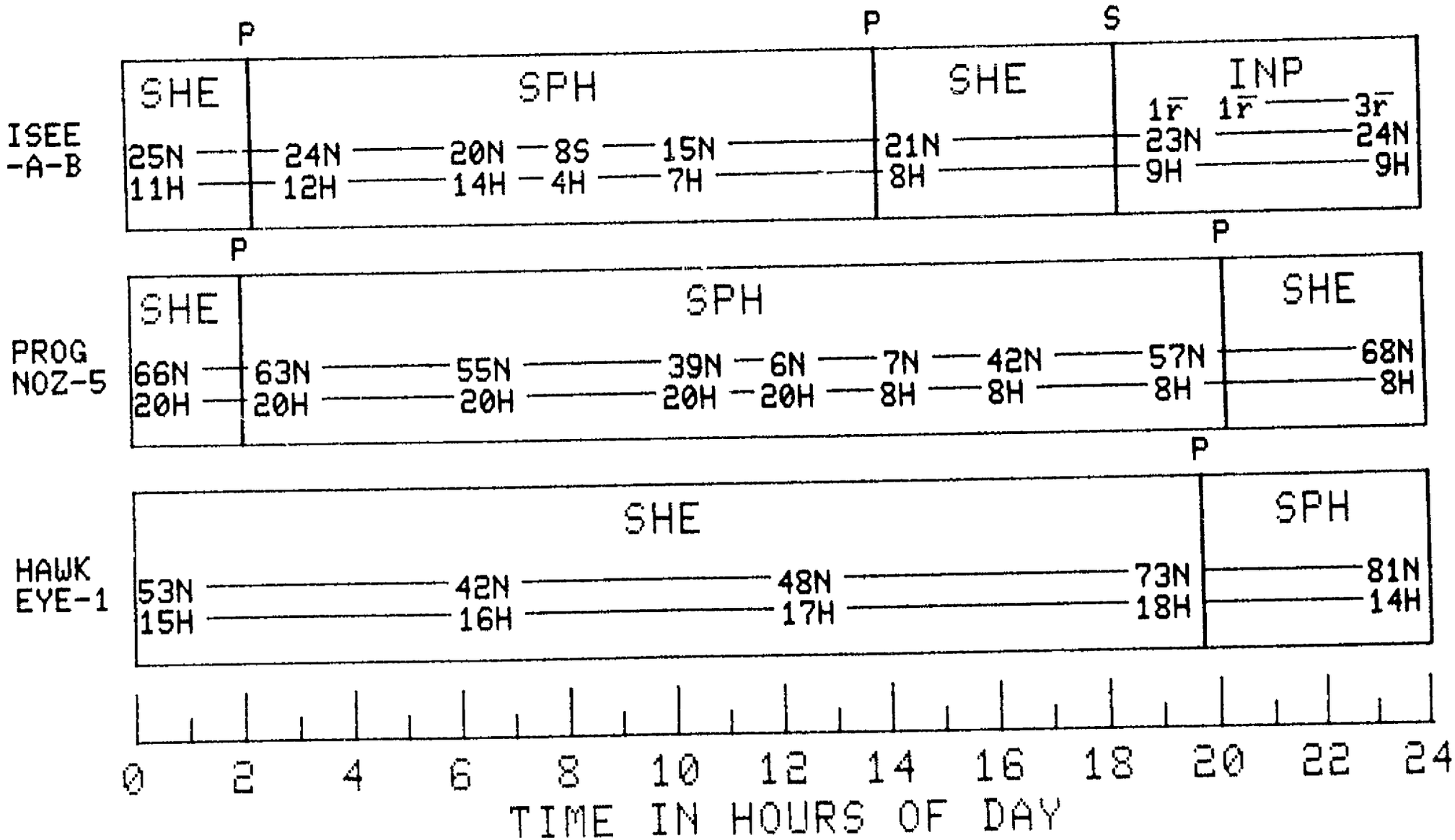

S
INP
ISEE
-A-B
7r̄ 7r̄ 6r̄ 3r̄ 1r̄ 0r
25N 25N 26N 26N 25N
10H 10H 11H 11H 11H
S
INP
SHE
PROG
NOZ-5
3r̄ 2r̄ 1r̄
82N 79N 78N 75N 72N 66N
19H 19H 19H 19H 19H 20H
P
SPH
SHE
HAWK
EYE-1
87N 40N 17S 2N 12N 20N 38N 52N 53N
8H 4H 16H 16H 16H 16H 17H 16H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

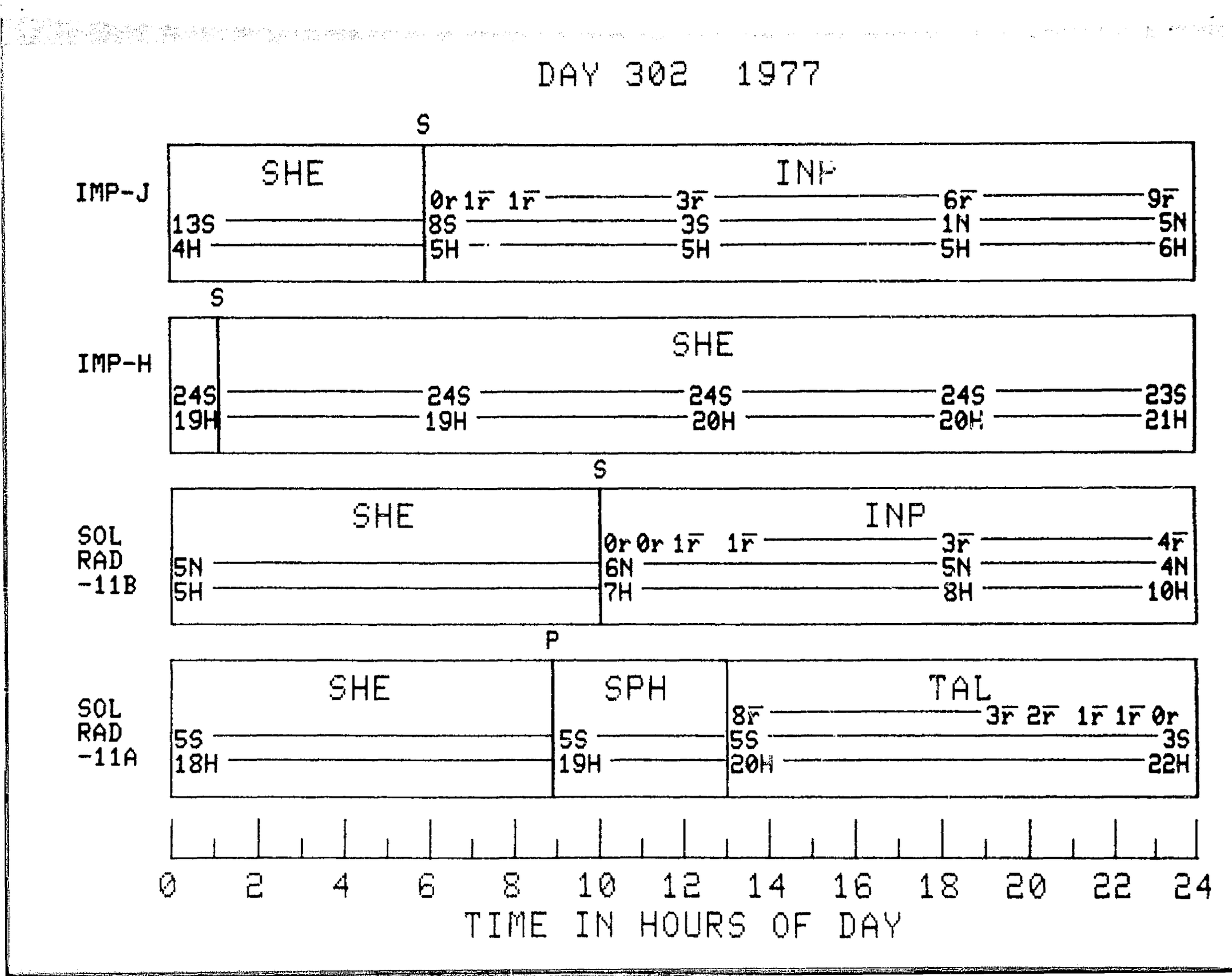

DAY 301 1977
P
IMP-J
TAL
SHE
10r̄
3r̄ 2r̄ 1r̄ 0r
32S
27S
18S
13S
2H
3H
4H
4H
IMP-H
INP
10r̄
8r̄
6r̄
3r̄
1r̄
18S
20S
22S
23S
24S
17H
17H
18H
18H
19H
P
SOL RAD -11B
TAL
SPH
3r
7r
8r
6r
1S
1N
2N
4N
5N
0H
1H
3H
4H
5H
S
SOL RAD -11A
INP
SHE
5r̄
4r̄
2r̄
1r̄ 1r̄ 1r̄ 0r
3r
0N
2S
3S
4S
5S
13H
14H
15H
16H
18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 301 1977

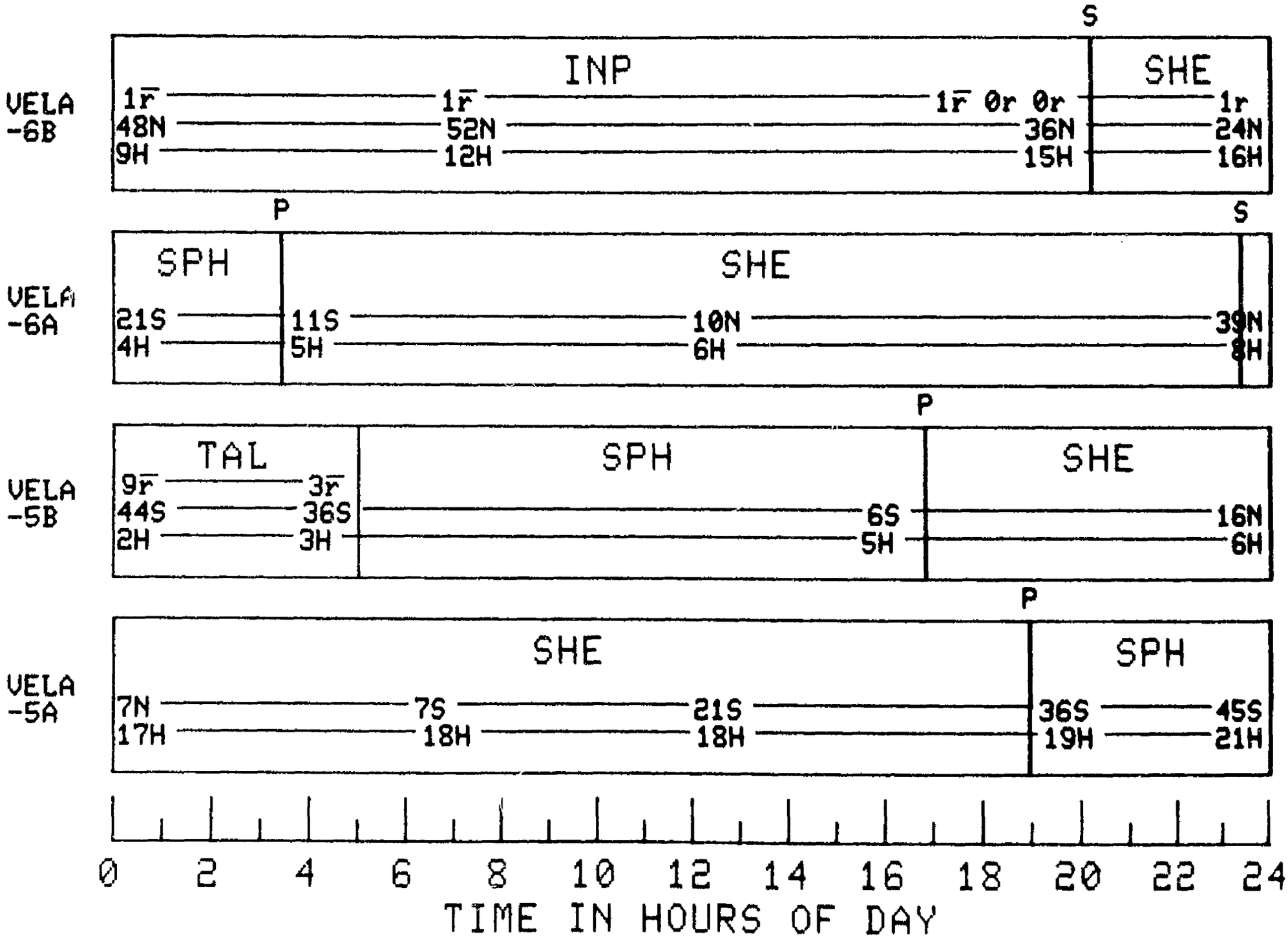

S
SHE
INP
VELA -6B
6r
7S 8N 23N 37N 48N
5H 6H 7H 8H 9H
0r 0r 0r 1r 1r
TAL
SPH
VELA -6A
12r 9r 7r
50S 52S 41S 21S
22H 0H 3H 4H
SPH
TAL
VELA -5B
37S
20H
13r 14r 10r
50S 53S 44S
22H 23H 2H
S
INP
SHE
VELA -5A
1r 1r 1r 0r 0r 0r 2r
53N 47N 34N 22N 7N
12H 14H 15H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 301 1977

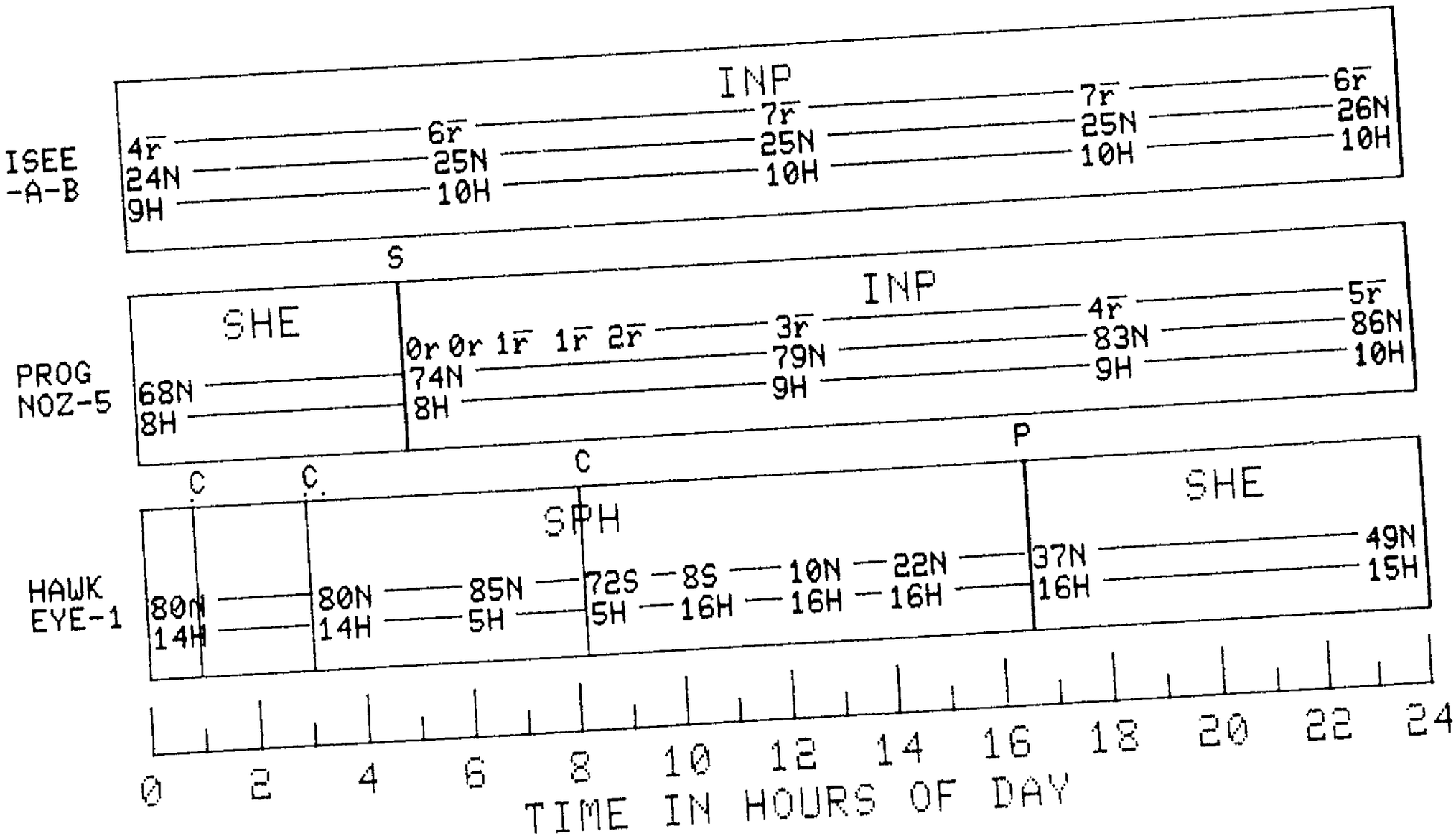

P
P
S
SHE
SPH
SHE
INP
ISEE
-A-B
25N
11H
24N
12H
20N
14H
8S
4H
15N
7H
21N
8H
1r
23N
9H
1r
3r
24N
9H
P
P
SHE
SPH
SHE
PROG
NOZ-5
66N
20H
63N
20H
55N
20H
39N
6N
20H
20H
7N
8H
42N
8H
57N
8H
68N
8H
P
SHE
SPH
HAWK
EYE-1
53N
15H
42N
16H
48N
17H
73N
18H
81N
14H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 302 1977
IMP-J
S
SHE
INP
13S
4H
0r 1r 1r
8S
5H
3r
3S
5H
6r
1N
5H
9r
5N
6H
IMP-H
S
SHE
24S
19H
24S
19H
24S
20H
24S
20H
23S
21H
SOL RAD -11B
S
SHE
INP
5N
5H
0r 0r 1r 1r
6N
7H
3r
5N
8H
4r
4N
10H
SOL RAD -11A
P
SHE
SPH
TAL
5S
18H
5S
19H
8r
5S
20H
3r 2r 1r 1r 0r
3S
22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

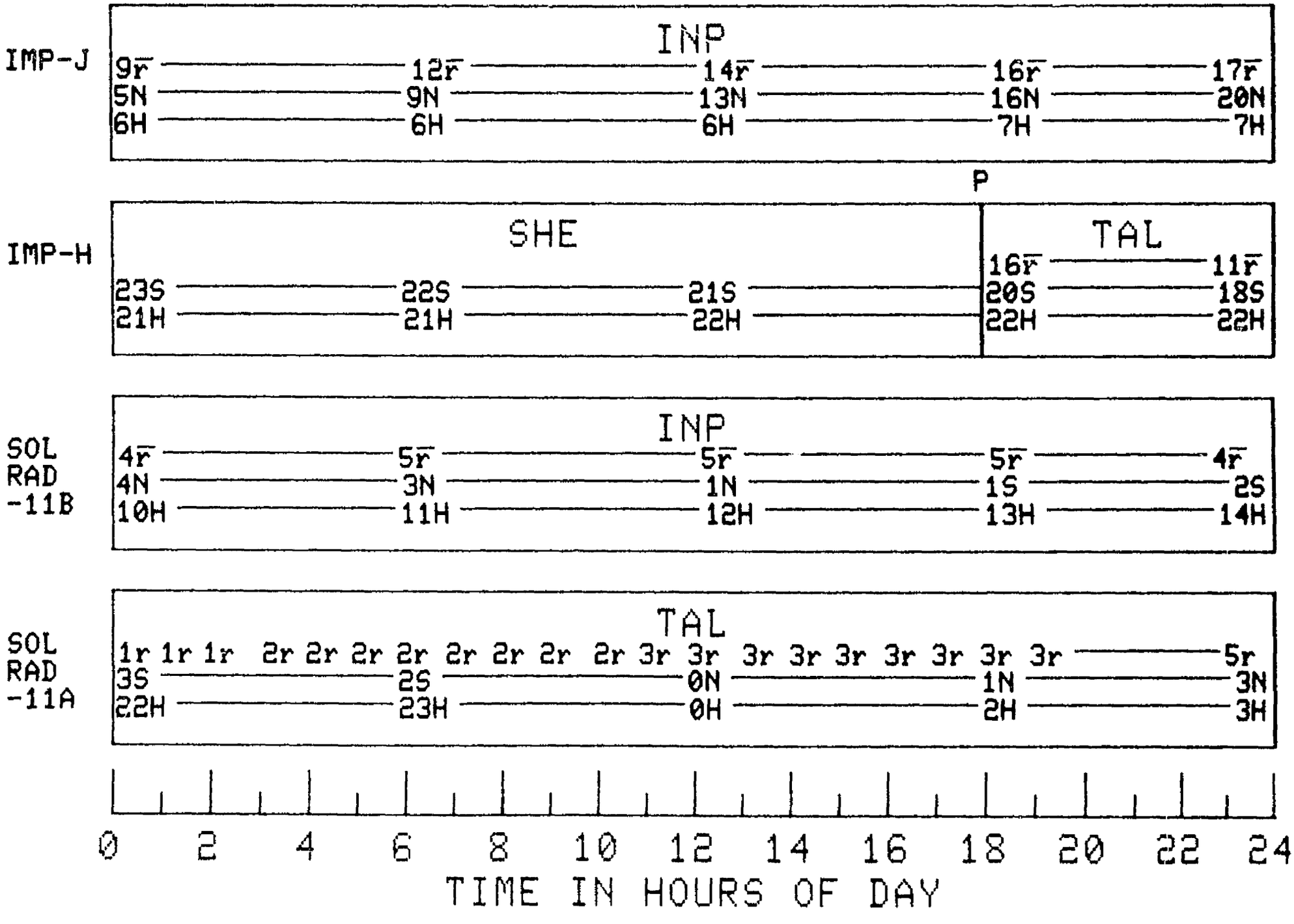
DAY 302 1977

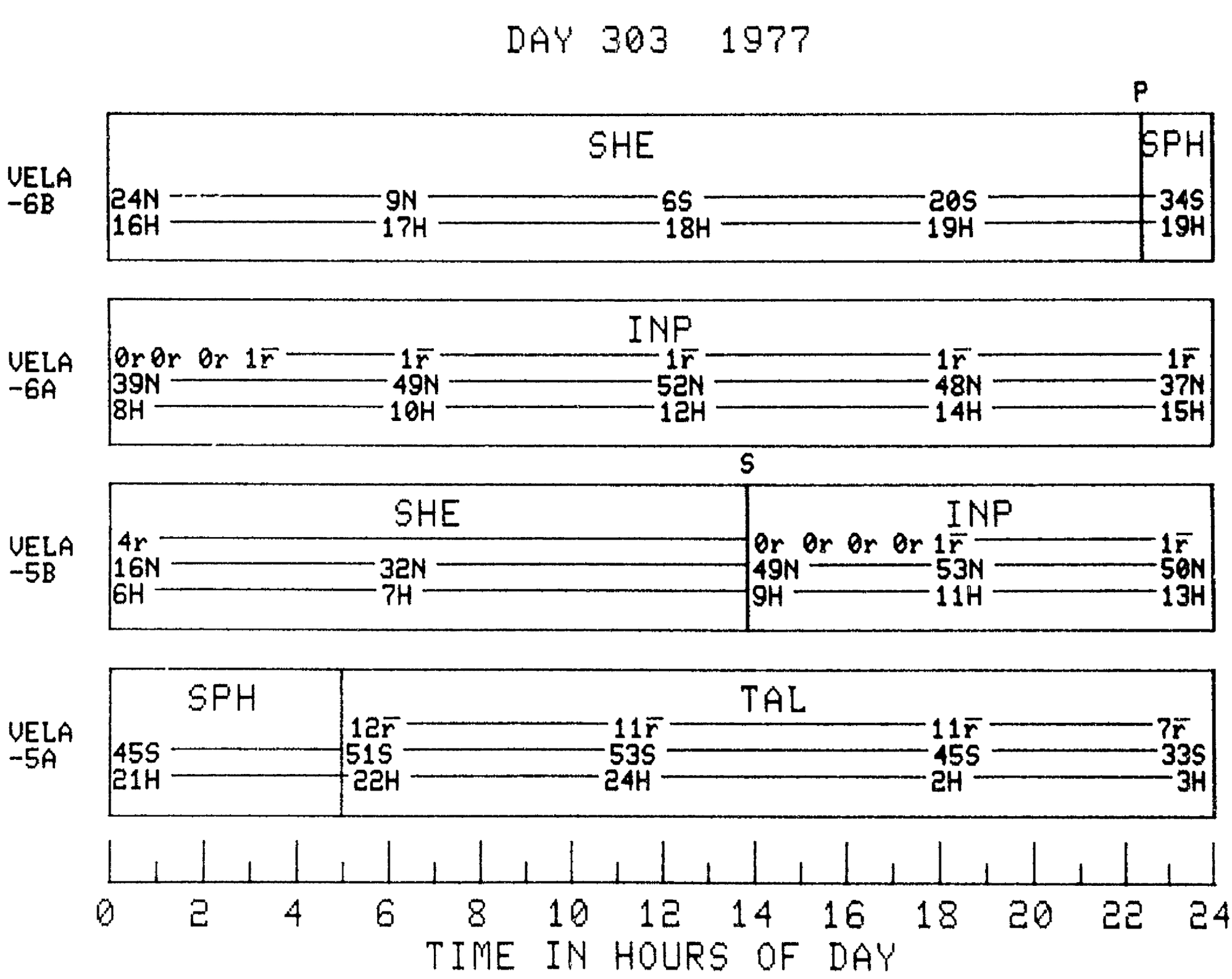

VELA -6B
S
INP
SHE
1r 1r 1r 0r 0r
48N 52N 36N
9H 12H 15H
1r
24N
16H
P
S
VELA -6A
SPH
SHE
21S 11S 10N
4H 5H 6H
39N
8H
P
VELA -5B
TAL
SPH
SHE
9r 3r
44S 36S
2H 3H
6S
5H
16N
6H
P
VELA -5A
SHE
SPH
7N 7S 21S
17H 18H 18H
36S 45S
19H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 302 1977

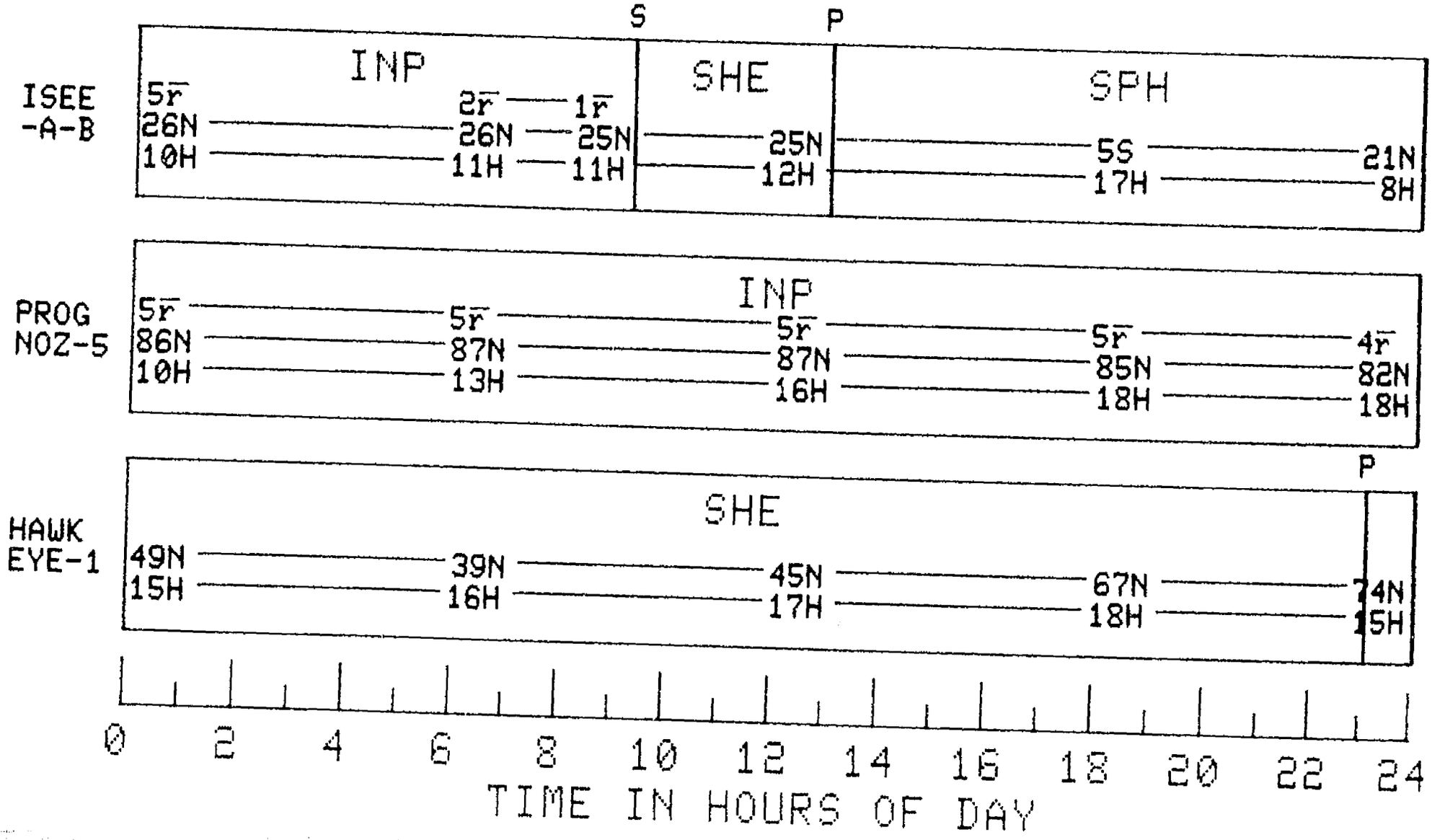

ISEE
-A-B
INP
4r
24N
9H
6r
25N
10H
7r
25N
10H
7r
25N
10H
6r
26N
10H
PROG
NOZ-5
S
SHE
68N
8H
INP
0r 0r 1r 1r 2r
74N
8H
3r
79N
9H
4r
83N
9H
5r
86N
10H
HAWK
EYE-1
C
C
C
P
SHE
SPH
80N
14H
80N
14H
85N
5H
72S
5H
8S
16H
10N
16H
22N
16H
37N
16H
49N
15H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 303 1977

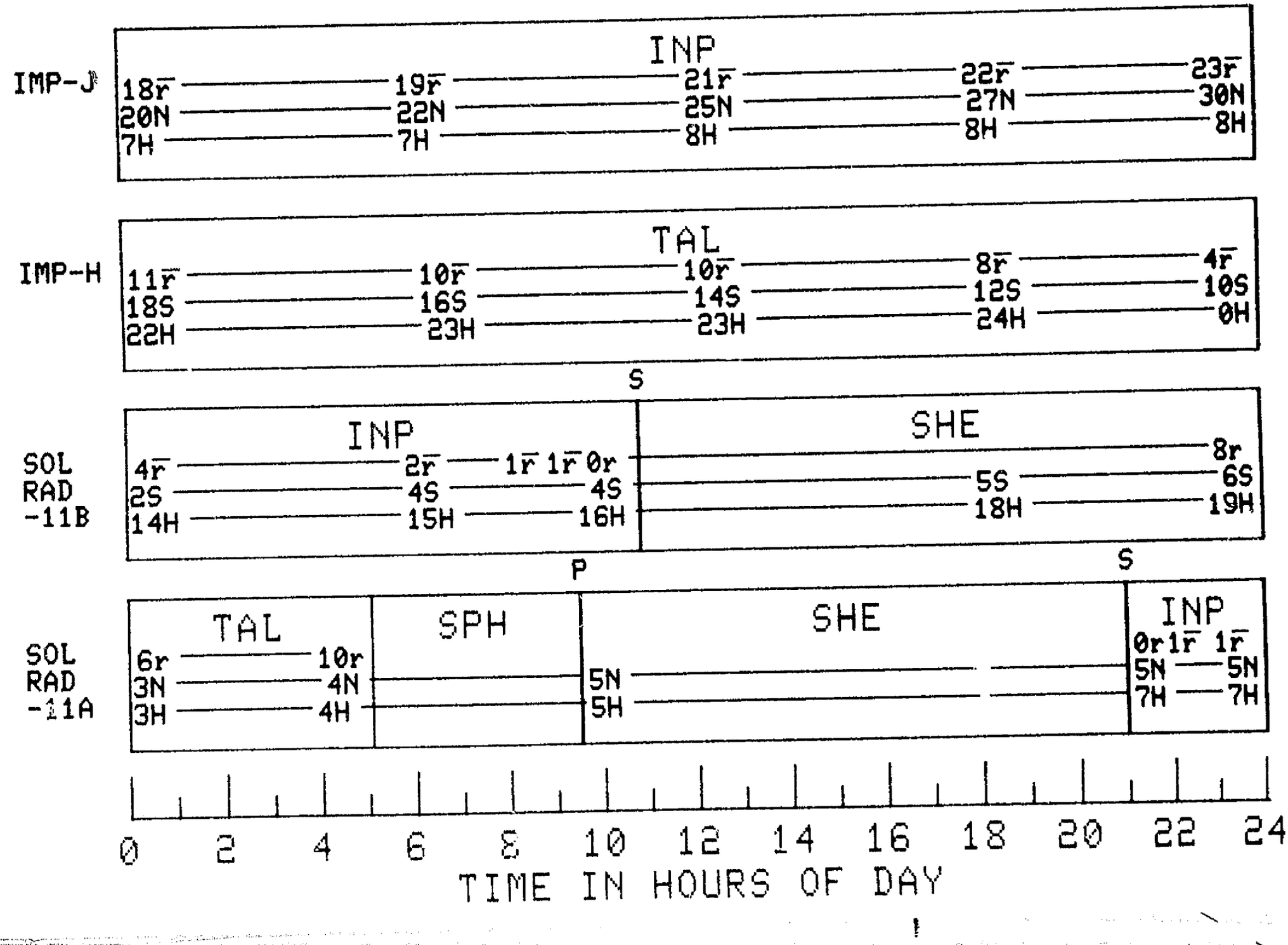

IMP-J
INP
9r̄ 12r̄ 14r̄ 16r̄ 17r̄
5N 9N 13N 16N 20N
6H 6H 6H 7H 7H
P
IMP-H
SHE
23S 22S 21S
21H 21H 22H
TAL
16r̄ 11r̄
20S 18S
22H 22H
SOL RAD -11B
INP
4r̄ 5r̄ 5r̄ 5r̄ 4r̄
4N 3N 1N 1S 2S
10H 11H 12H 13H 14H
SOL RAD -11A
TAL
1r 1r 1r 2r 2r 2r 2r 2r 2r 2r 2r 3r 3r 3r 3r 3r 3r 3r 3r 5r
3S 2S 0N 1N 3N
22H 23H 0H 2H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 303 1977
P
SHE
SPH
VELA -6B
24N 9N 6S 20S 34S
16H 17H 18H 19H 19H
INP
VELA -6A
0r 0r 0r 1r 1r 1r 1r 1r
39N 49N 52N 48N 37N
8H 10H 12H 14H 15H
S
SHE
INP
VELA -5B
4r
16N 32N
6H 7H
0r 0r 0r 0r 1r 1r
49N 53N 50N
9H 11H 13H
SPH
TAL
VELA -5A
12r 11r 11r 7r
45S 51S 53S 45S 33S
21H 22H 24H 2H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

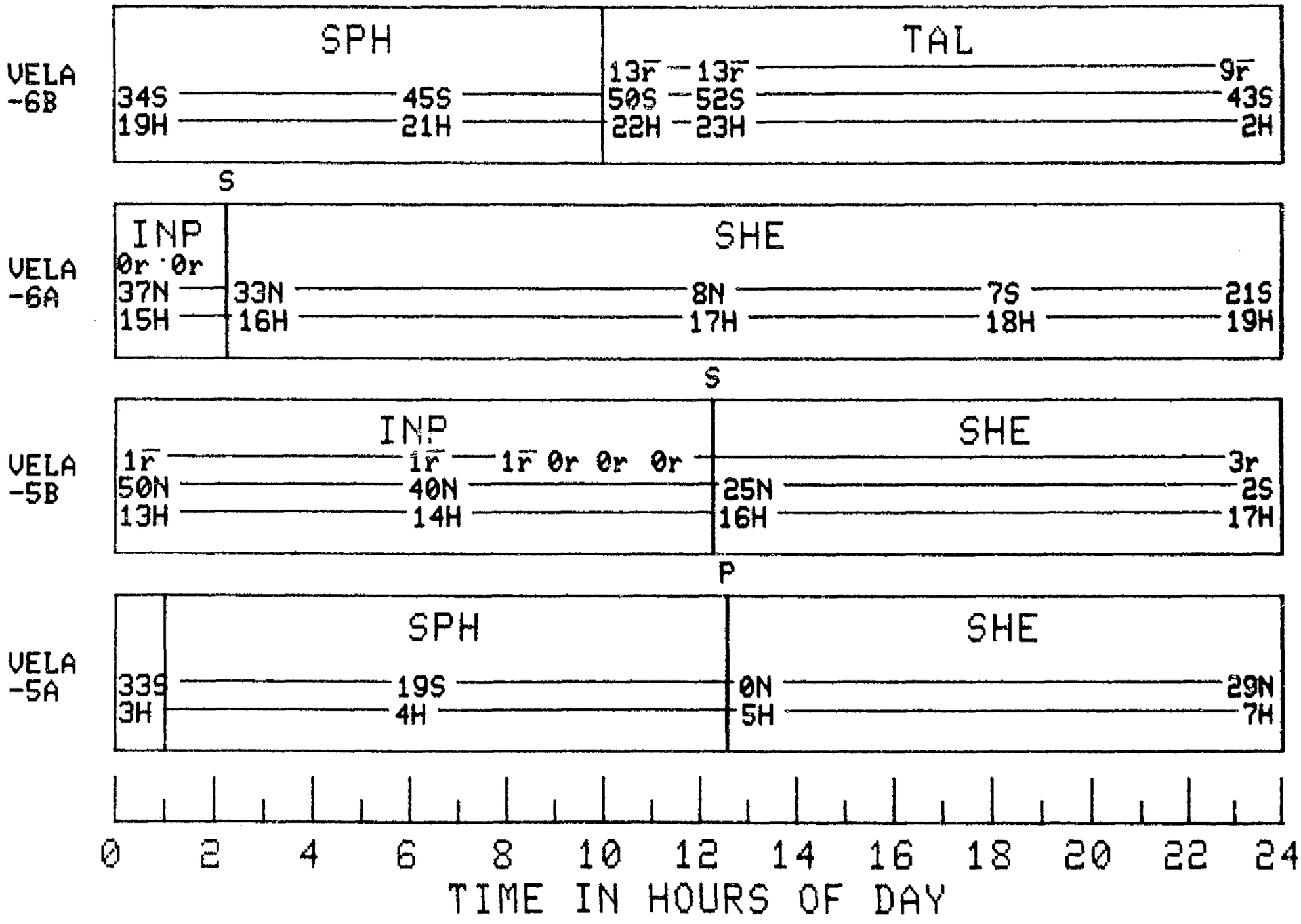
DAY 303 1977


S
P
INP
SHE
SPH
ISEE
-A-B
5r̄
26N
10H
2r̄
26N
11H
1r̄
25N
11H
25N
12H
5S
17H
21N
8H
INP
PROG
NOZ-5
5r̄
86N
10H
5r̄
87N
13H
5r̄
87N
16H
5r̄
85N
18H
4r̄
82N
18H
P
SHE
HAWK
EYE-1
49N
15H
39N
16H
45N
17H
67N
18H
74N
15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

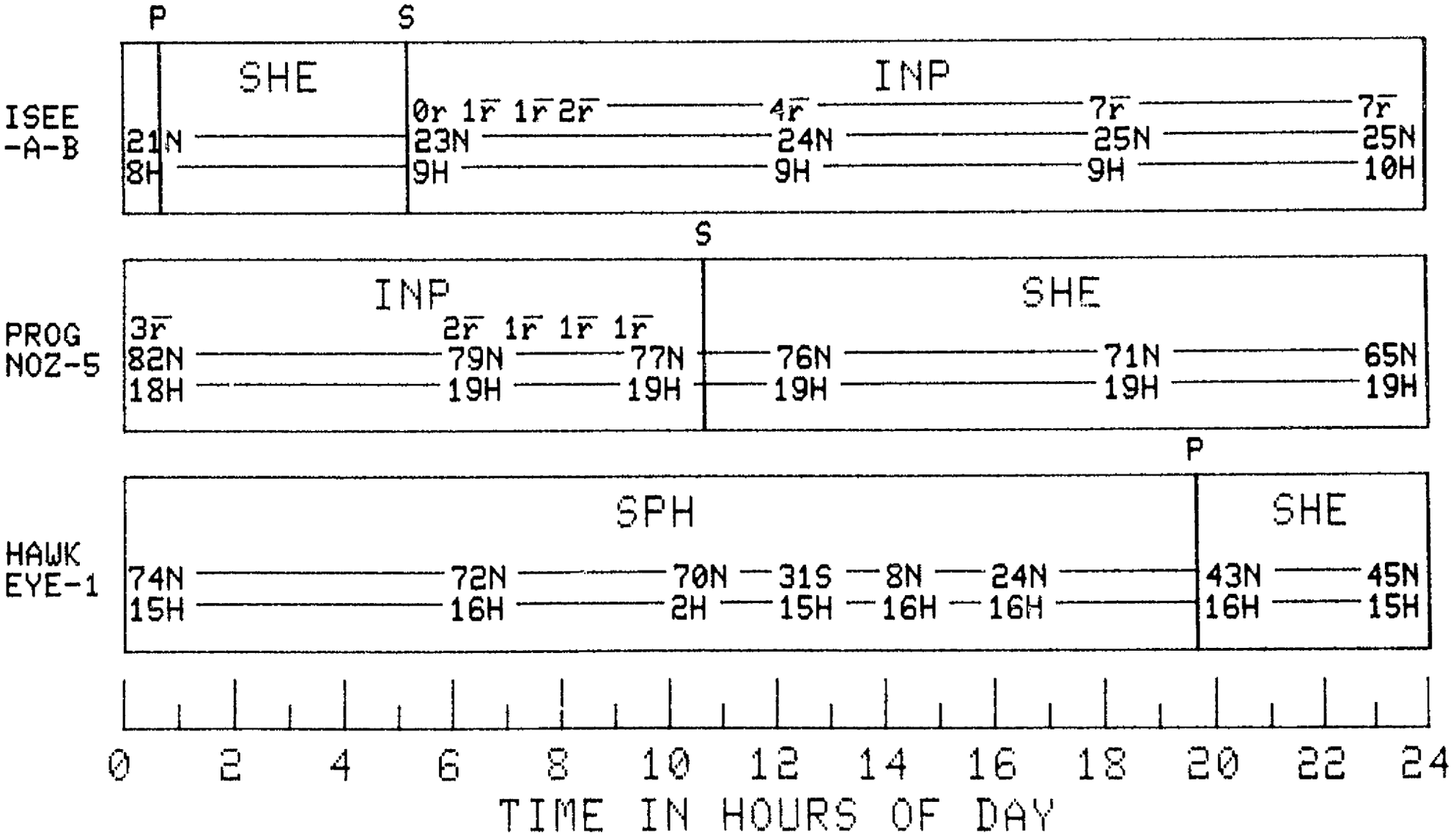
DAY 304 1977


IMP-J
INP
18r̄ 19r̄ 21r̄ 22r̄ 23r̄
20N 22N 25N 27N 30N
7H 7H 8H 8H 8H
IMP-H
TAL
11r̄ 10r̄ 10r̄ 8r̄ 4r̄
18S 16S 14S 12S 10S
22H 23H 23H 24H 0H
S
SOL RAD -11B
INP
4r̄ 2r̄ 1r̄ 1r̄ 0r
2S 4S 4S
14H 15H 16H
SHE
8r
5S 6S
18H 19H
P
S
SOL RAD -11A
TAL
6r 10r
3N 4N
3H 4H
SPH
5N
5H
SHE
INP
0r 1r̄ 1r̄
5N 5N
7H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

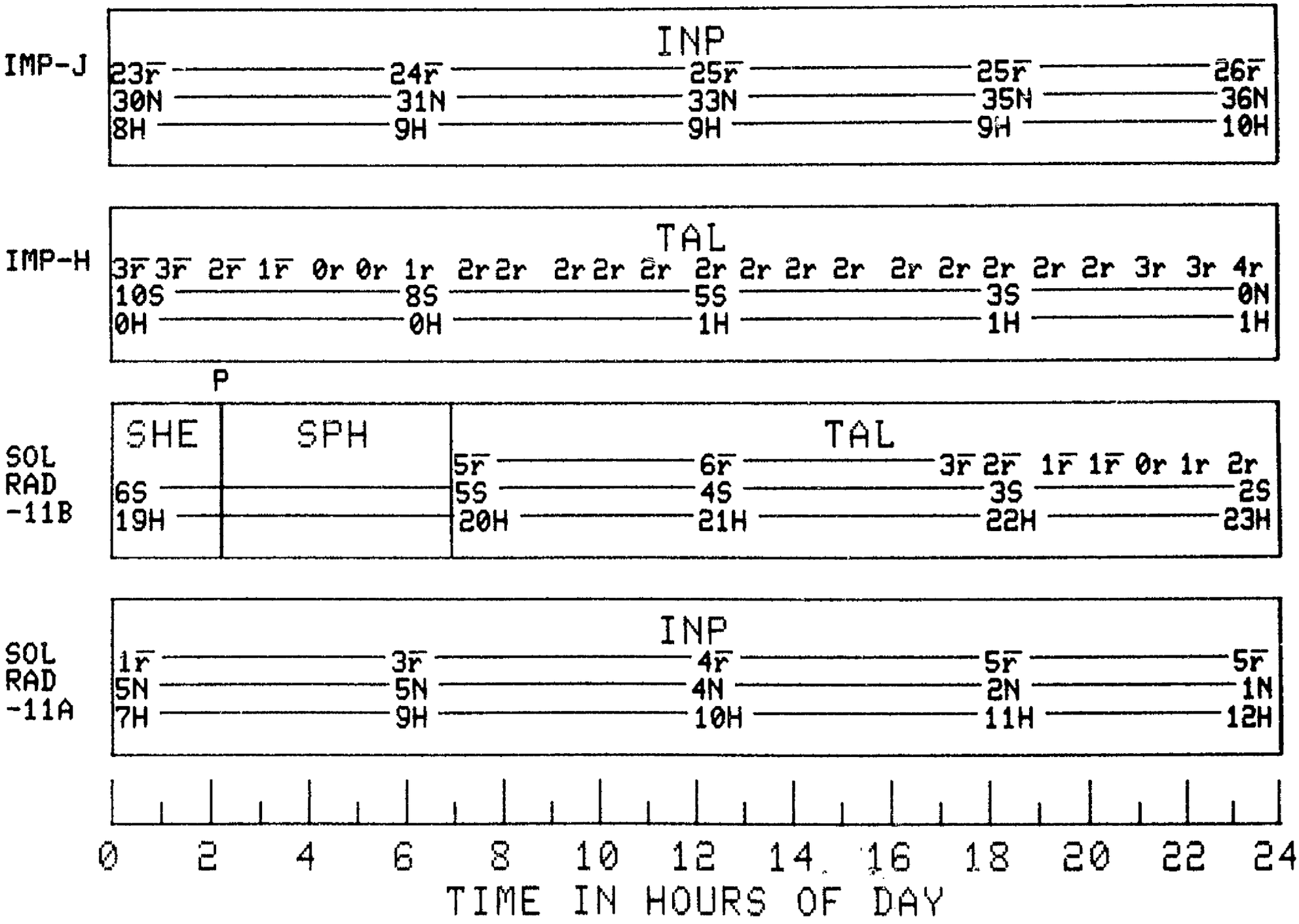
DAY 304 1977


VELA -6B
SPH
34S 45S
19H 21H
TAL
13r 13r 9r
50S 52S 43S
22H 23H 2H
S
VELA -6A
INP
0r 0r
37N
15H
33N 8N 7S 21S
16H 17H 18H 19H
SHE
S
VELA -5B
INP
1r 1r 1r 0r 0r 0r
50N 40N
13H 14H
SHE
25N 3r 2S
16H 17H
P
VELA -5A
SPH
33S 19S
3H 4H
SHE
0N 29N
5H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

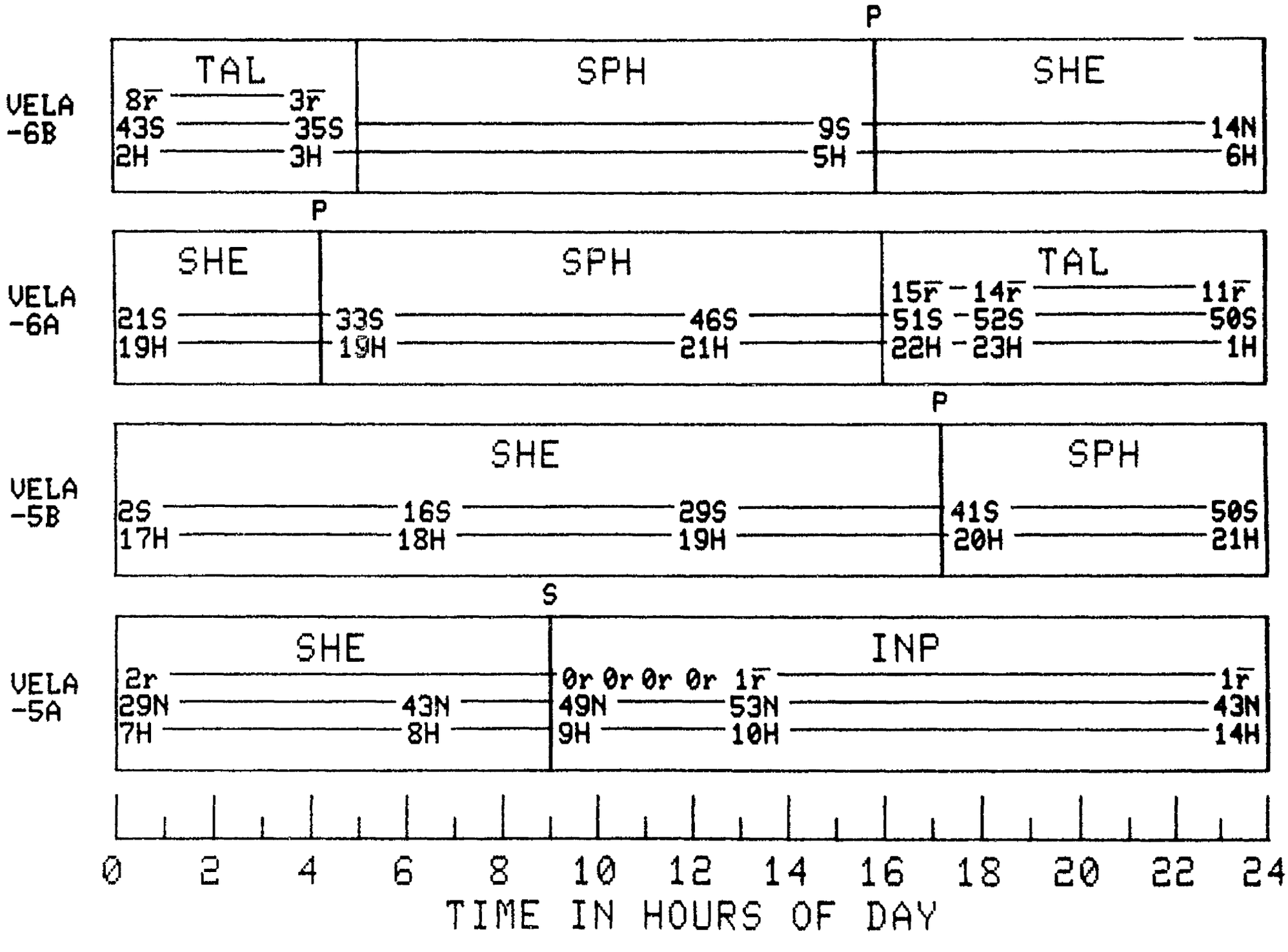
DAY 304 1977


P
S
SHE
INP
ISEE
-A-B
21N
8H
0r 1r 1r 2r
23N
9H
4r
24N
9H
7r
25N
9H
7r
25N
10H
S
INP
SHE
PROG
NOZ-5
3r
82N
18H
2r 1r 1r 1r
79N
19H
77N
19H
76N
19H
71N
19H
65N
19H
P
SPH
SHE
HAWK
EYE-1
74N
15H
72N
16H
70N
2H
31S
15H
8N
16H
24N
16H
43N
16H
45N
15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

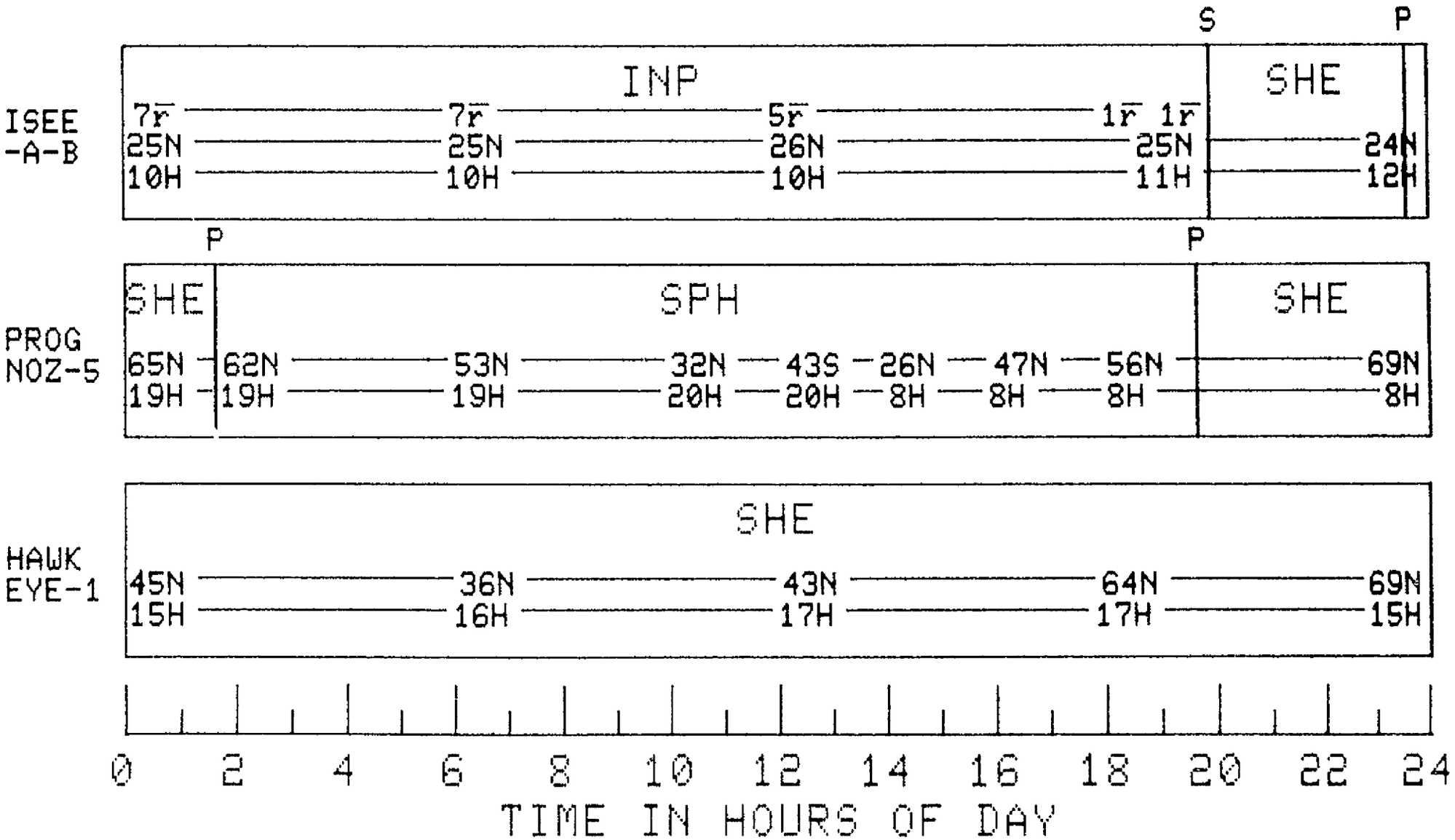
DAY 305 1977


IMP-J
INP
23r̄ 24r̄ 25r̄ 25r̄ 26r̄
30N 31N 33N 35N 36N
8H 9H 9H 9H 10H
IMP-H
TAL
3r̄ 3r̄ 2r̄ 1r̄ 0r 0r 1r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 2r 3r 3r 4r
10S 8S 5S 3S 0N
0H 0H 1H 1H 1H
P
SOL RAD -11B
SHE
SPH
TAL
5r̄ 6r̄ 3r̄ 2r̄ 1r̄ 1r̄ 0r 1r 2r
6S 5S 4S 3S 2S
19H 20H 21H 22H 23H
SOL RAD -11A
INP
1r̄ 3r̄ 4r̄ 5r̄ 5r̄
5N 5N 4N 2N 1N
7H 9H 10H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

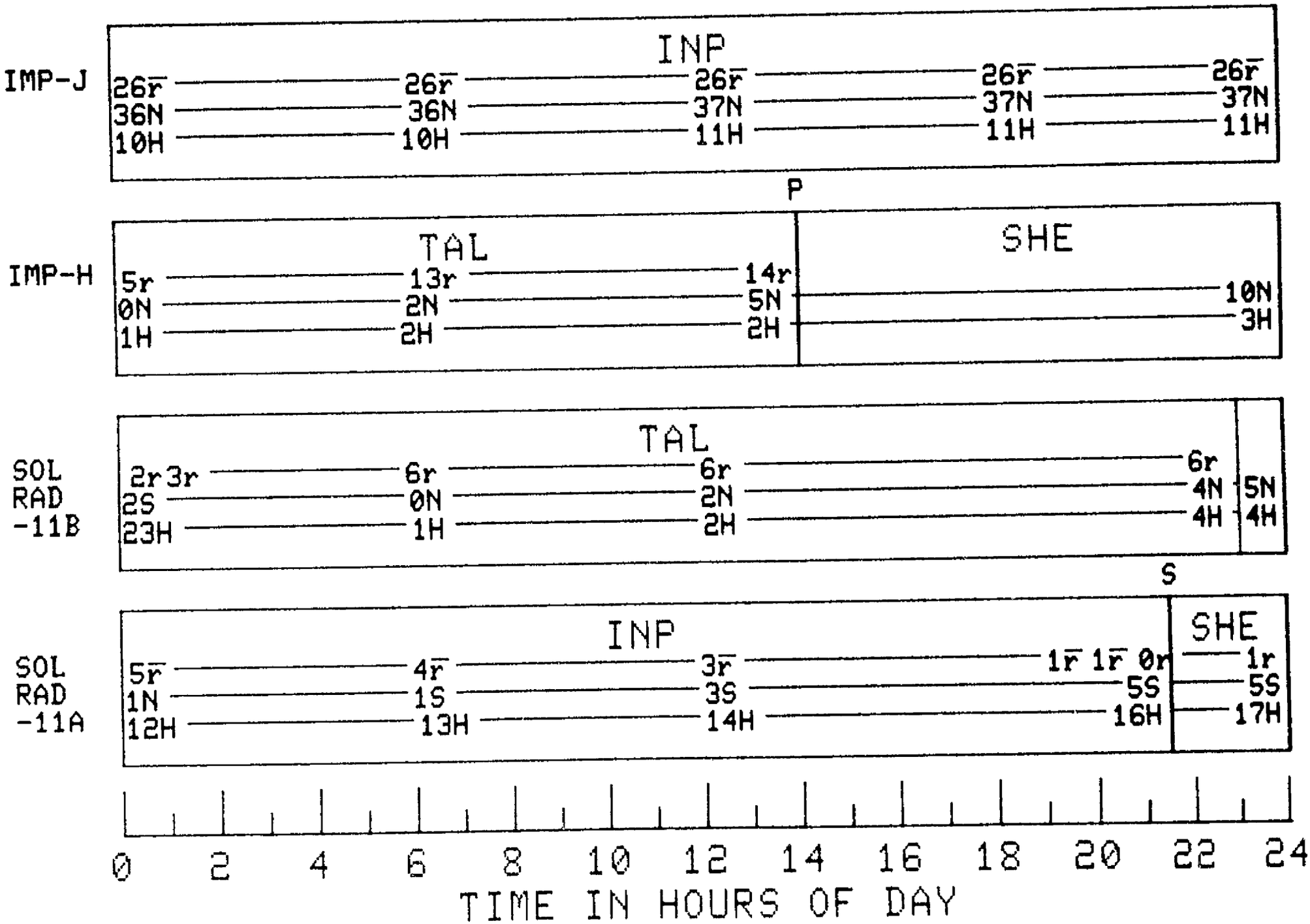
DAY 305 1977


VELA -6B
TAL
SPH
SHE
P
8r 3r
43S 35S 9S 14N
2H 3H 5H 6H
VELA -6A
SHE
SPH
TAL
P
21S 33S 46S 15r 14r 11r
19H 19H 21H 51S 52S 50S
22H 23H 1H
VELA -5B
SHE
SPH
P
2S 16S 29S 41S 50S
17H 18H 19H 20H 21H
VELA -5A
SHE
INP
S
2r 0r 0r 0r 0r 1r 1r
29N 43N 49N 53N 43N
7H 8H 9H 10H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

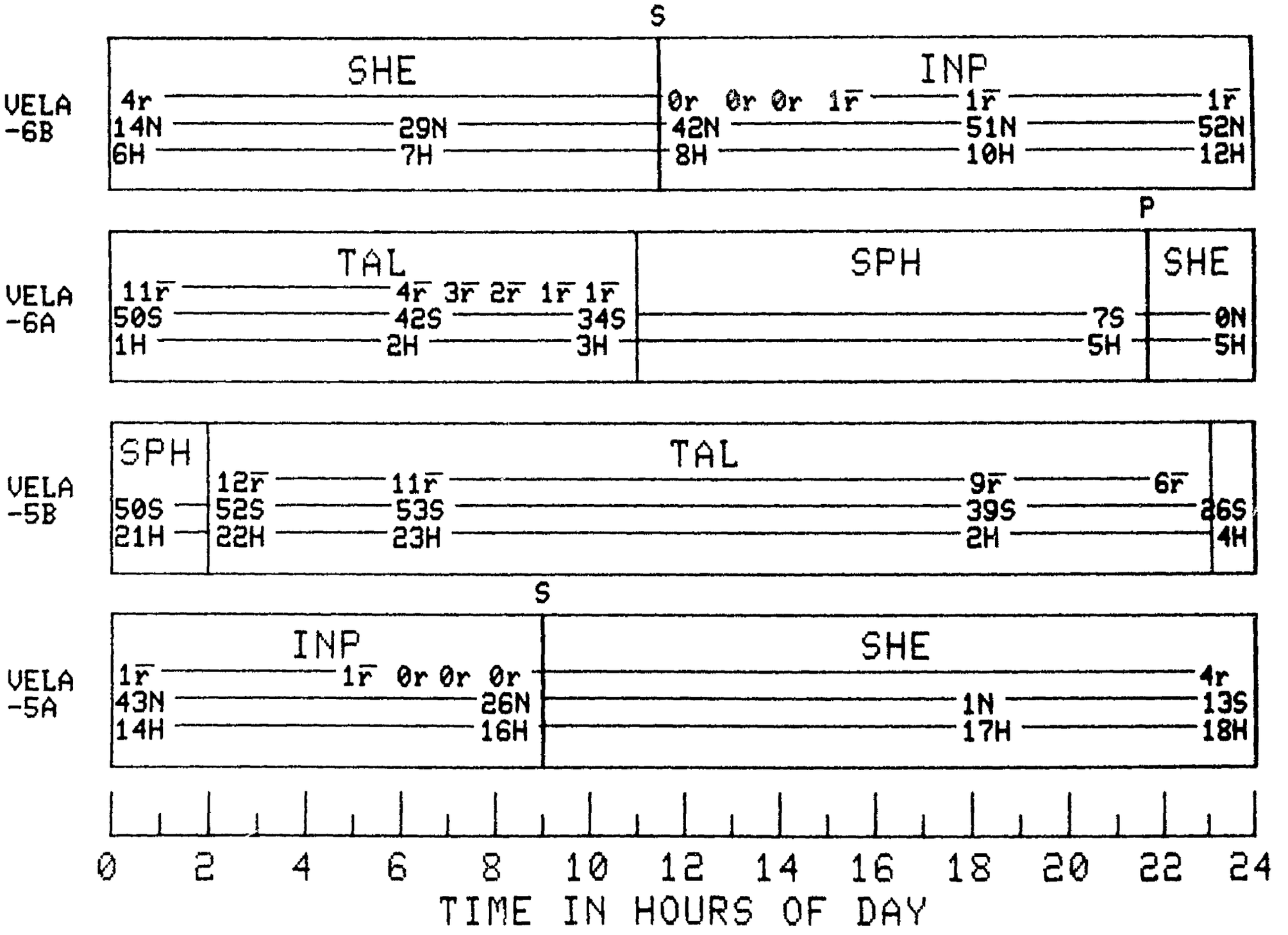
DAY 305 1977


S
P
INP
SHE
ISEE
-A-B
7r 7r 5r 1r 1r
25N 25N 26N 25N 24N
10H 10H 10H 11H 12H
P
P
SHE
SPH
SHE
PROG
NOZ-5
65N 62N 53N 32N 43S 26N 47N 56N 69N
19H 19H 19H 20H 20H 8H 8H 8H 8H
SHE
HAWK
EYE-1
45N 36N 43N 64N 69N
15H 16H 17H 17H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

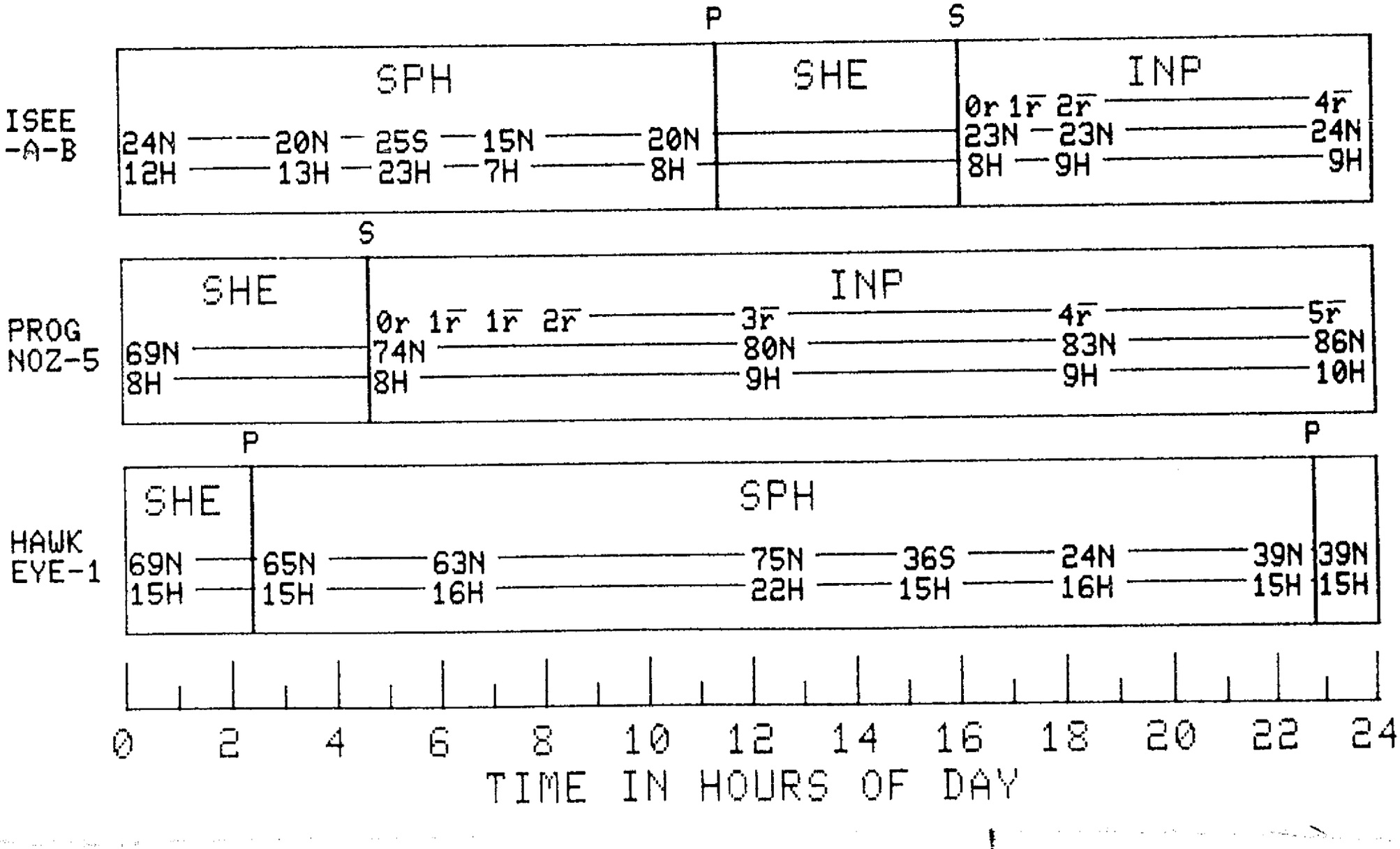
DAY 306 1977


IMP-J
INP
26r̄ 26r̄ 26r̄ 26r̄ 26r̄
36N 36N 37N 37N 37N
10H 10H 11H 11H 11H
P
IMP-H
TAL
SHE
5r 13r 14r 10N
0N 2N 5N 3H
1H 2H 2H
SOL RAD -11B
TAL
2r 3r 6r 6r 6r
2S 0N 2N 4N 5N
23H 1H 2H 4H 4H
S
SOL RAD -11A
INP
SHE
5r̄ 4r̄ 3r̄ 1r̄ 1r̄ 0r 1r
1N 1S 3S 5S 5S
12H 13H 14H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

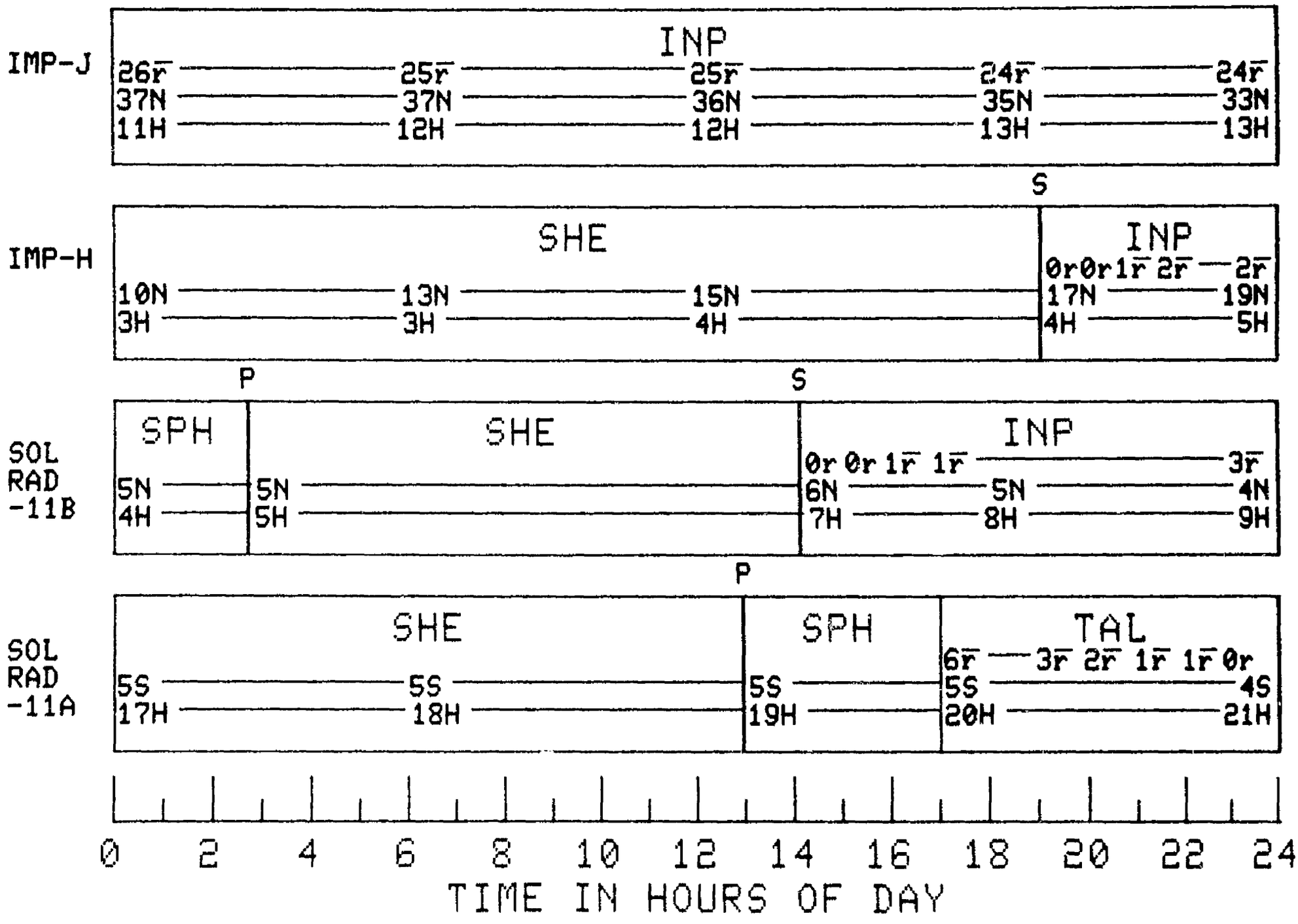
DAY 306 1977


S
SHE
INP
VELA -6B
4r
14N
6H
29N
7H
0r 0r 0r 1r
42N
8H
1r
51N
10H
1r
52N
12H
P
TAL
SPH
SHE
VELA -6A
11r
50S
1H
4r 3r 2r 1r 1r
42S
2H
34S
3H
7S
5H
0N
5H
SPH
TAL
VELA -5B
50S
21H
12r
52S
22H
11r
53S
23H
9r
39S
2H
6r
26S
4H
S
INP
SHE
VELA -5A
1r
43N
14H
1r 0r 0r 0r
26N
16H
4r
1N
17H
13S
18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

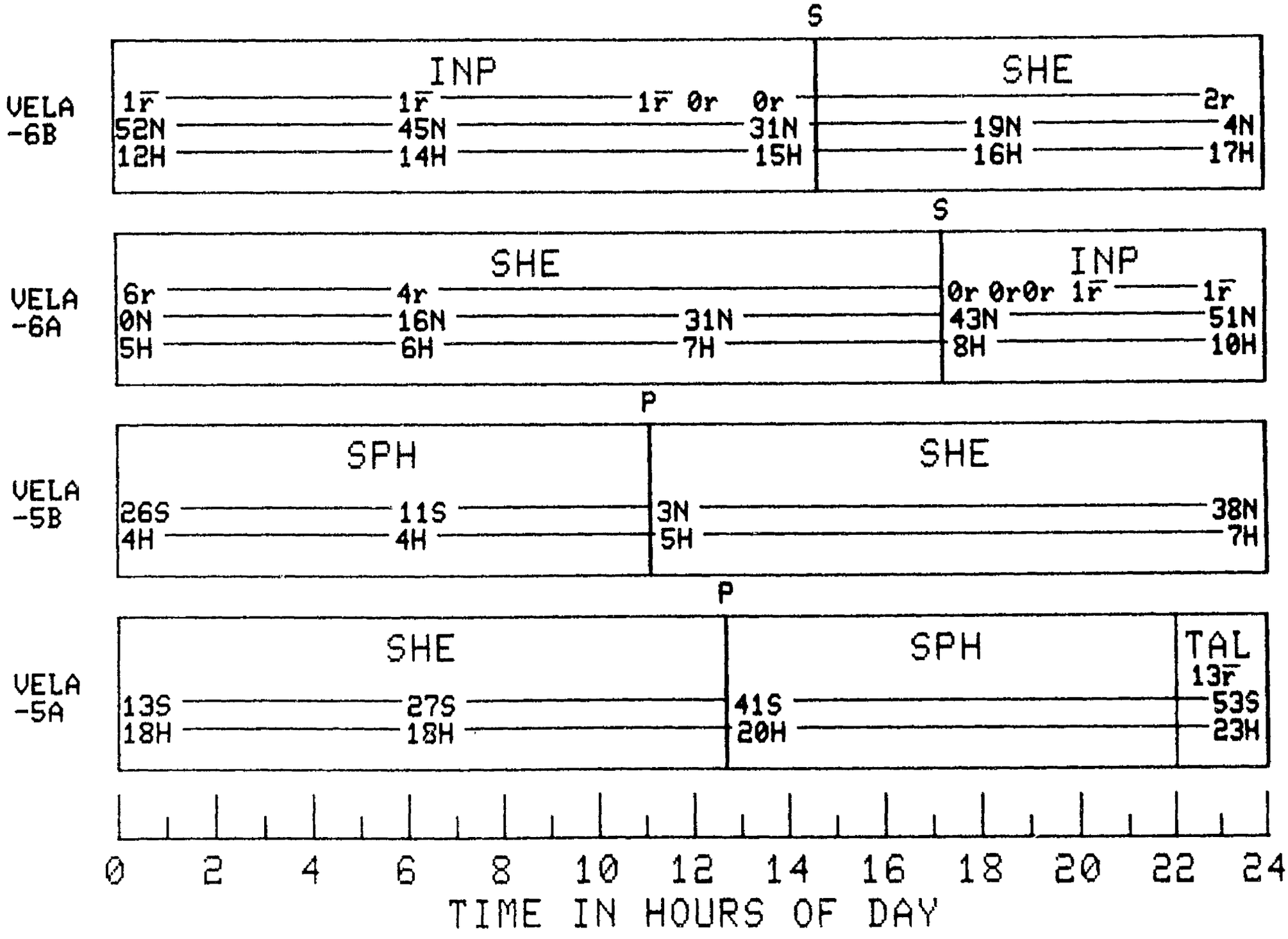
DAY 306 1977


P
S
ISEE
-A-B
SPH
SHE
INP
24N 20N 25S 15N 20N
12H 13H 23H 7H 8H
0r 1r 2r 4r
23N 23N 24N
8H 9H 9H
S
PROG
NOZ-5
SHE
INP
69N
8H
0r 1r 1r 2r 3r 4r 5r
74N 80N 83N 86N
8H 9H 9H 10H
P
P
HAWK
EYE-1
SHE
SPH
69N 65N 63N 75N 36S 24N 39N 39N
15H 15H 16H 22H 15H 16H 15H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

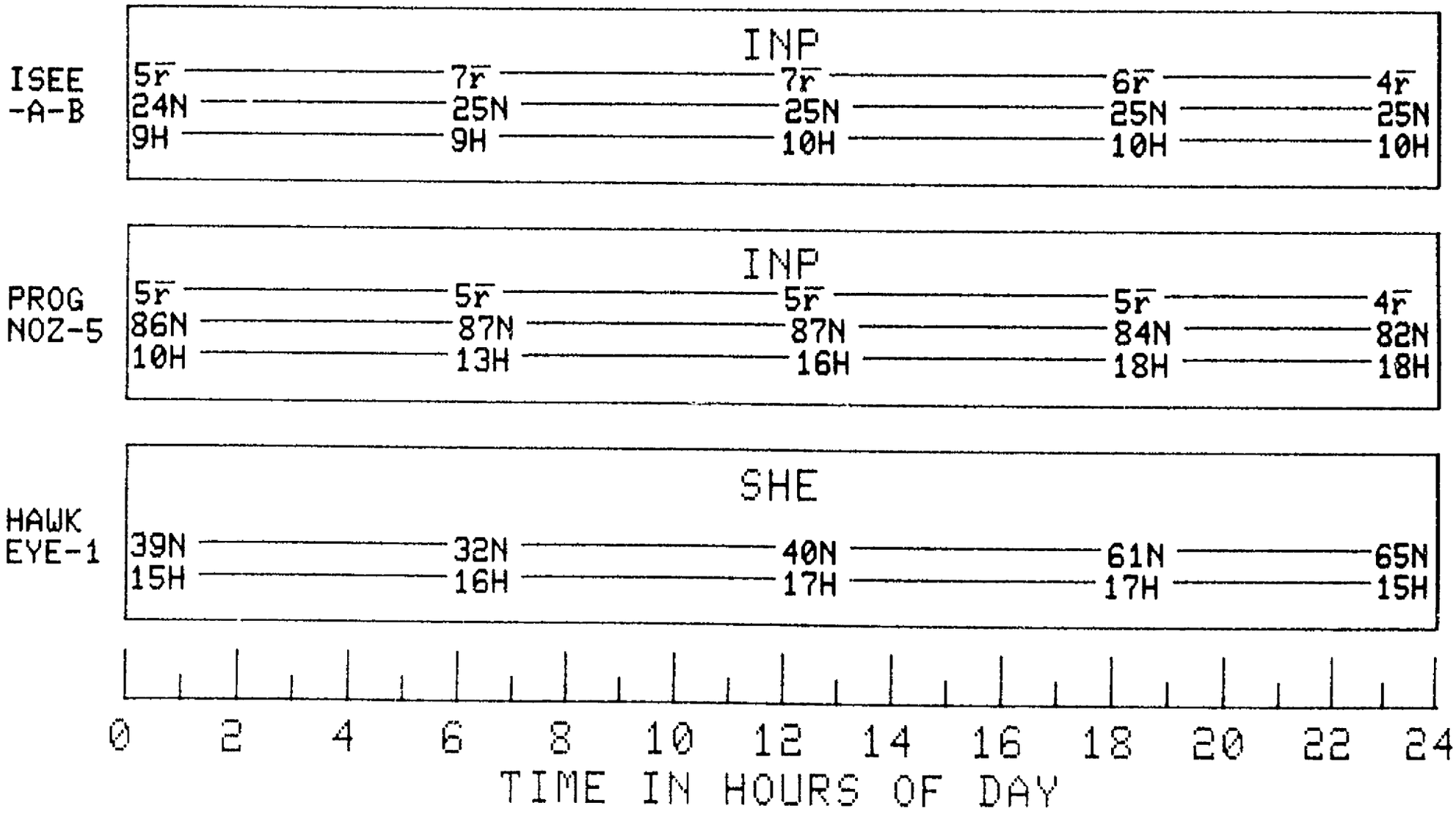
DAY 307 1977


IMP-J
INP
26r̄ 25r̄ 25r̄ 24r̄ 24r̄
37N 37N 36N 35N 33N
11H 12H 12H 13H 13H
S
IMP-H
SHE
INP
10N 13N 15N
3H 3H 4H
0r 0r 1r̄ 2r̄ 2r̄
17N 19N
4H 5H
P
S
SOL RAD -11B
SPH
SHE
INP
5N 5N
4H 5H
0r 0r 1r̄ 1r̄ 3r̄
6N 5N 4N
7H 8H 9H
P
SOL RAD -11A
SHE
SPH
TAL
5S 5S 5S
17H 18H 19H
6r̄ 3r̄ 2r̄ 1r̄ 1r̄ 0r
5S 4S
20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

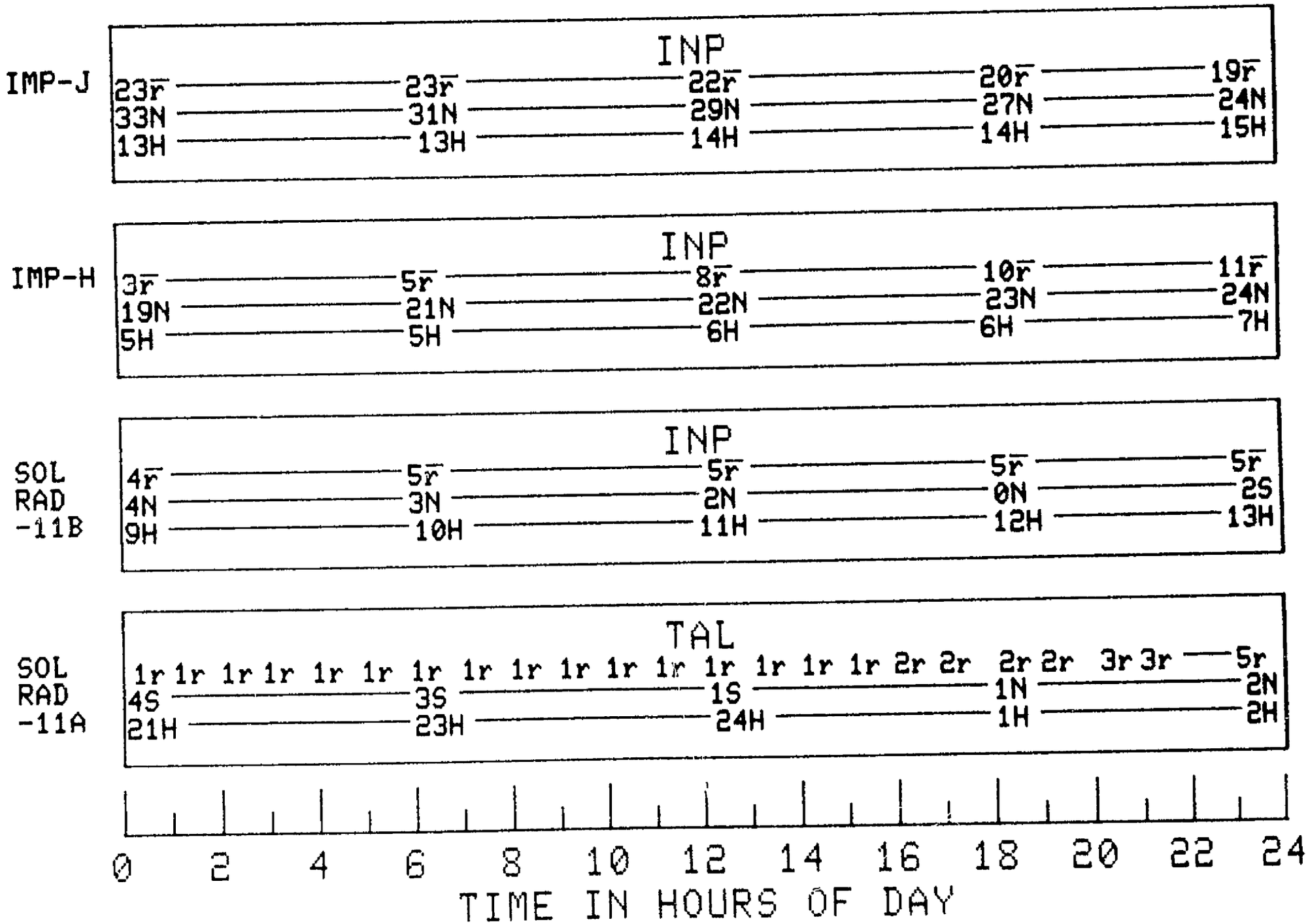
DAY 307 1977


S
INP
SHE
VELA -6B
1r̄ 1r̄ 1r̄ 0r 0r 2r
52N 45N 31N 19N 4N
12H 14H 15H 16H 17H
S
SHE
INP
VELA -6A
6r 4r 0r 0r0r 1r̄ 1r̄
0N 16N 31N 43N 51N
5H 6H 7H 8H 10H
P
SPH
SHE
VELA -5B
26S 11S 3N 38N
4H 4H 5H 7H
P
SHE
SPH
TAL
VELA -5A
13r̄
13S 27S 41S 53S
18H 18H 20H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

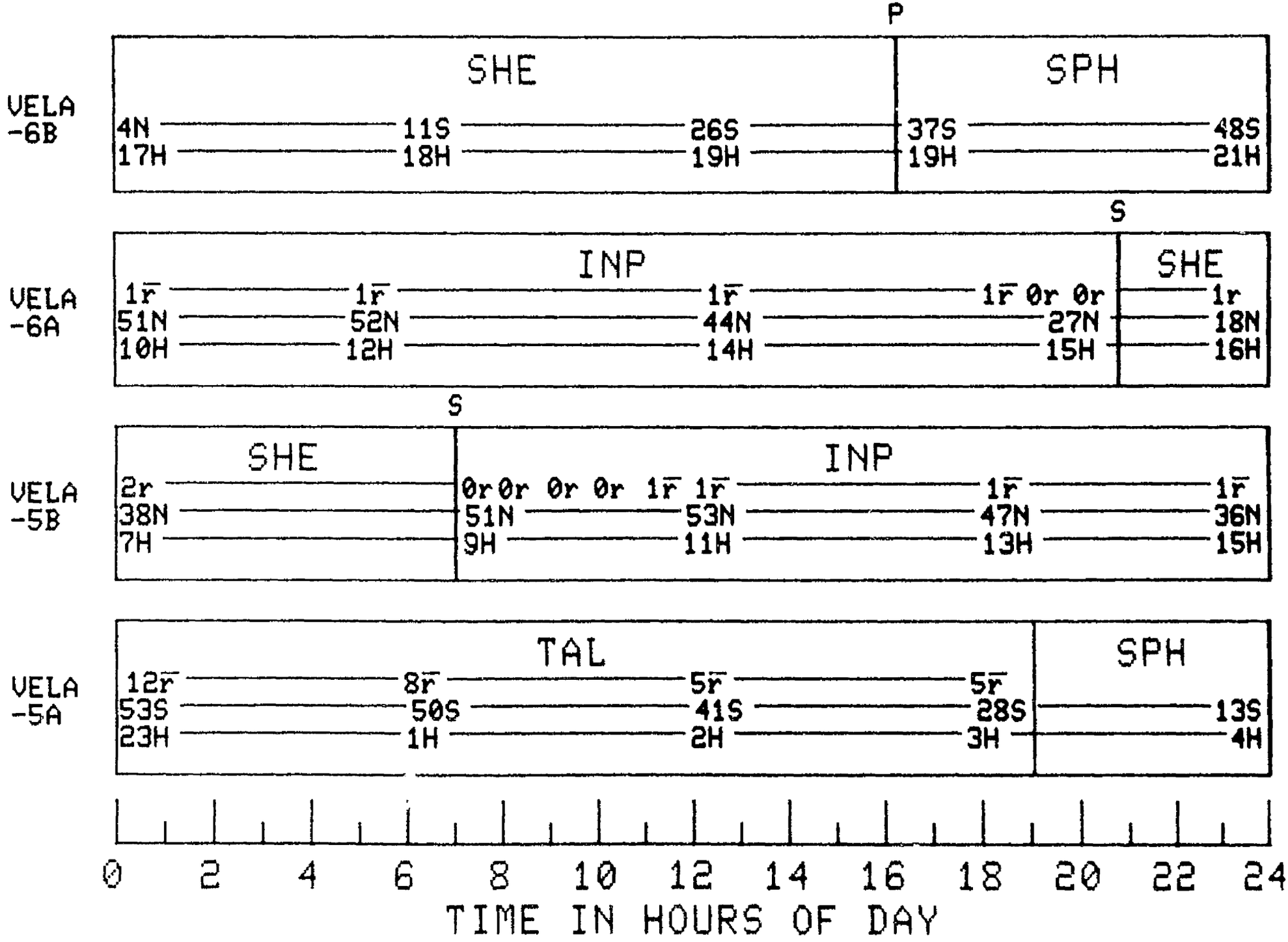
DAY 307 1977


INP
ISEE
-A-B
5r
24N
9H
7r
25N
9H
7r
25N
10H
6r
25N
10H
4r
25N
10H
INP
PROG
NOZ-5
5r
86N
10H
5r
87N
13H
5r
87N
16H
5r
84N
18H
4r
82N
18H
SHE
HAWK
EYE-1
39N
15H
32N
16H
40N
17H
61N
17H
65N
15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

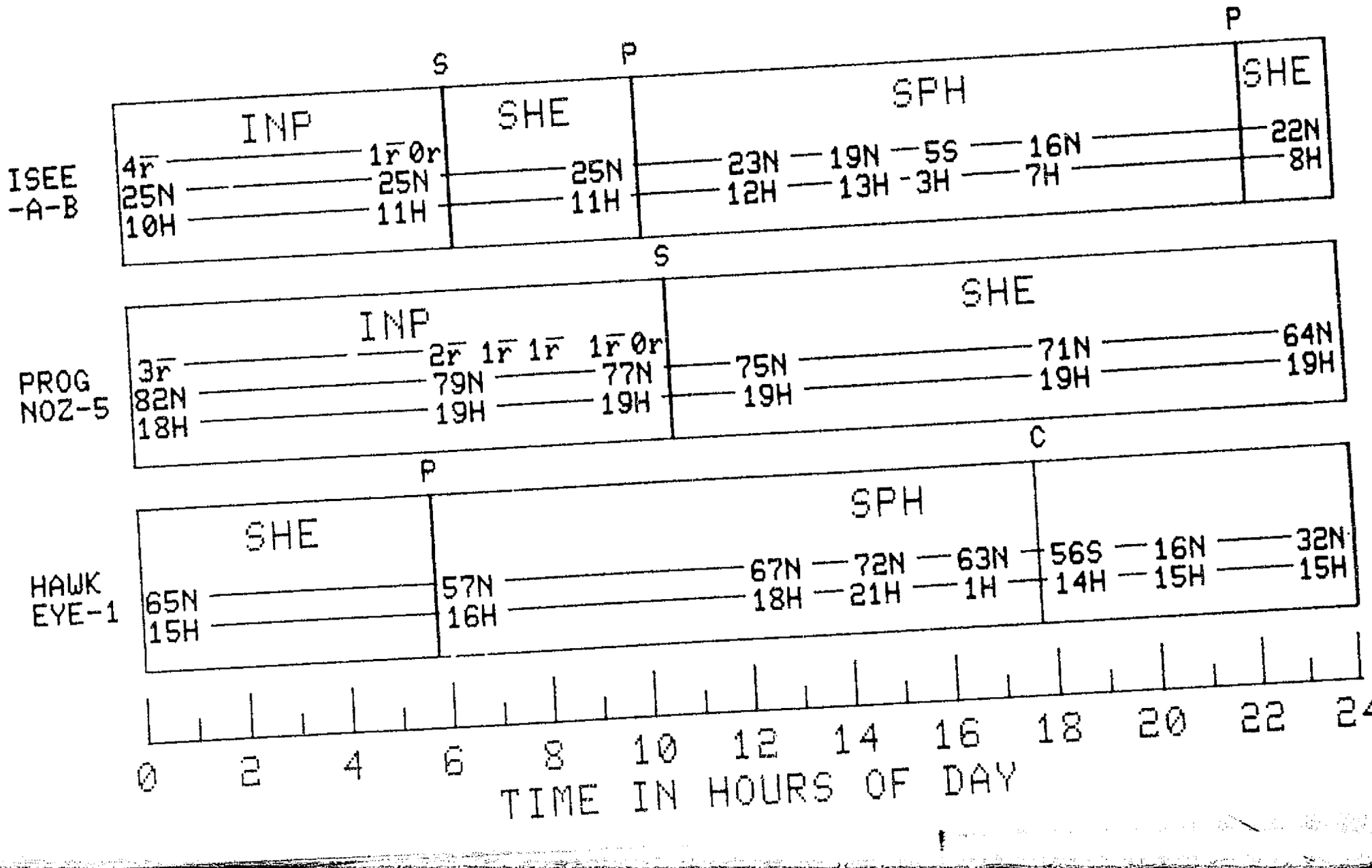
DAY 308 1977


IMP-J
INP
23r 23r 22r 20r 19r
33N 31N 29N 27N 24N
13H 13H 14H 14H 15H
IMP-H
INP
3r 5r 8r 10r 11r
19N 21N 22N 23N 24N
5H 5H 6H 6H 7H
SOL RAD -11B
INP
4r 5r 5r 5r 5r
4N 3N 2N 0N 2S
9H 10H 11H 12H 13H
SOL RAD -11A
TAL
1r 1r 1r 1r 1r 1r 1r 1r 1r 1r 1r 1r 1r 1r 1r 2r 2r 2r 2r 3r 3r 5r
4S 3S 1S 1N 2N
21H 23H 24H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

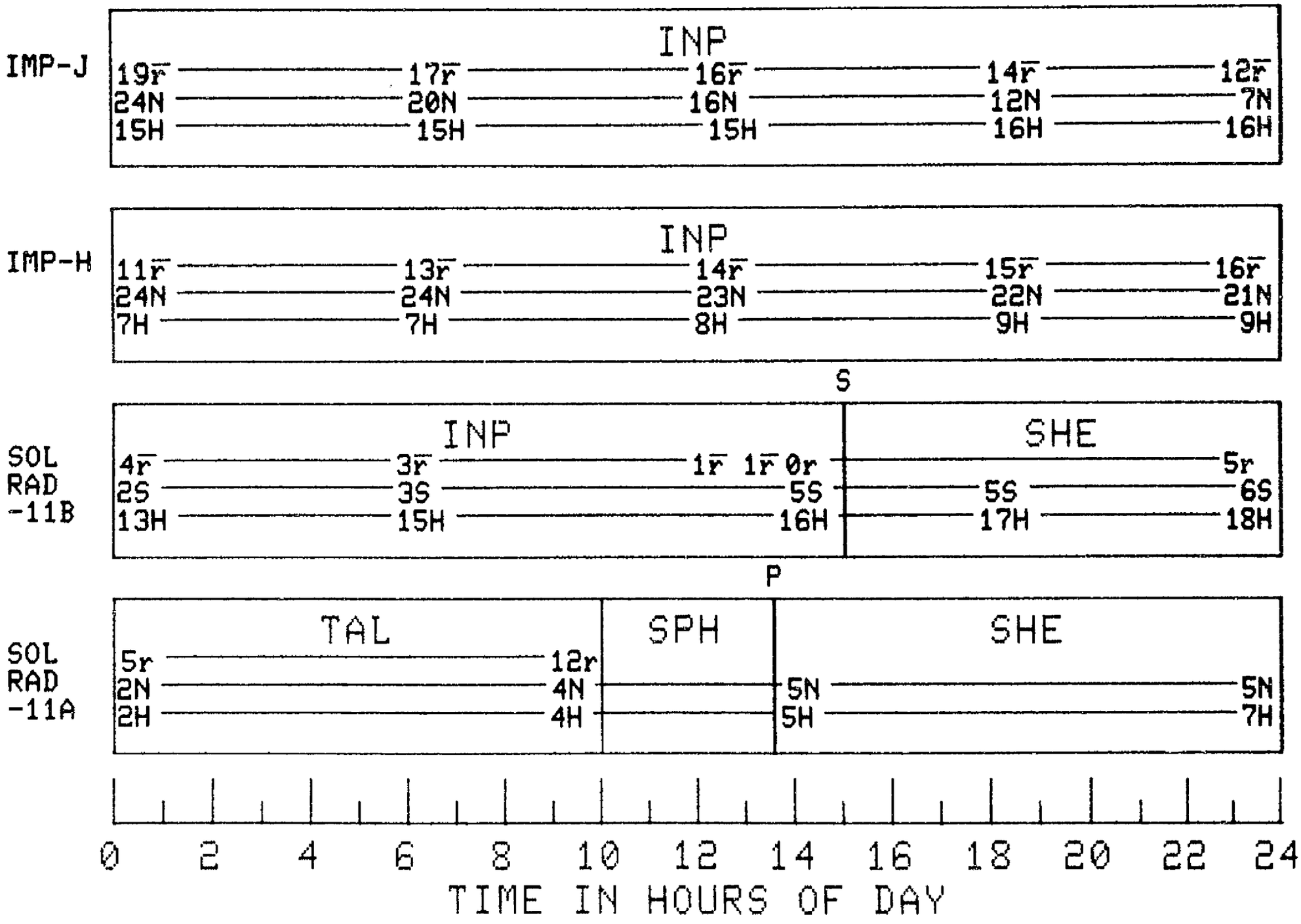
DAY 308 1977


P
SHE
SPH
VELA -6B
4N 11S 26S 37S 48S
17H 18H 19H 19H 21H
S
INP
SHE
VELA -6A
1r 1r 1r 1r 0r 0r 1r
51N 52N 44N 27N 18N
10H 12H 14H 15H 16H
S
SHE
INP
VELA -5B
2r 0r 0r 0r 1r 1r 1r 1r
38N 51N 53N 47N 36N
7H 9H 11H 13H 15H
TAL
SPH
VELA -5A
12r 8r 5r 5r
53S 50S 41S 28S 13S
23H 1H 2H 3H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

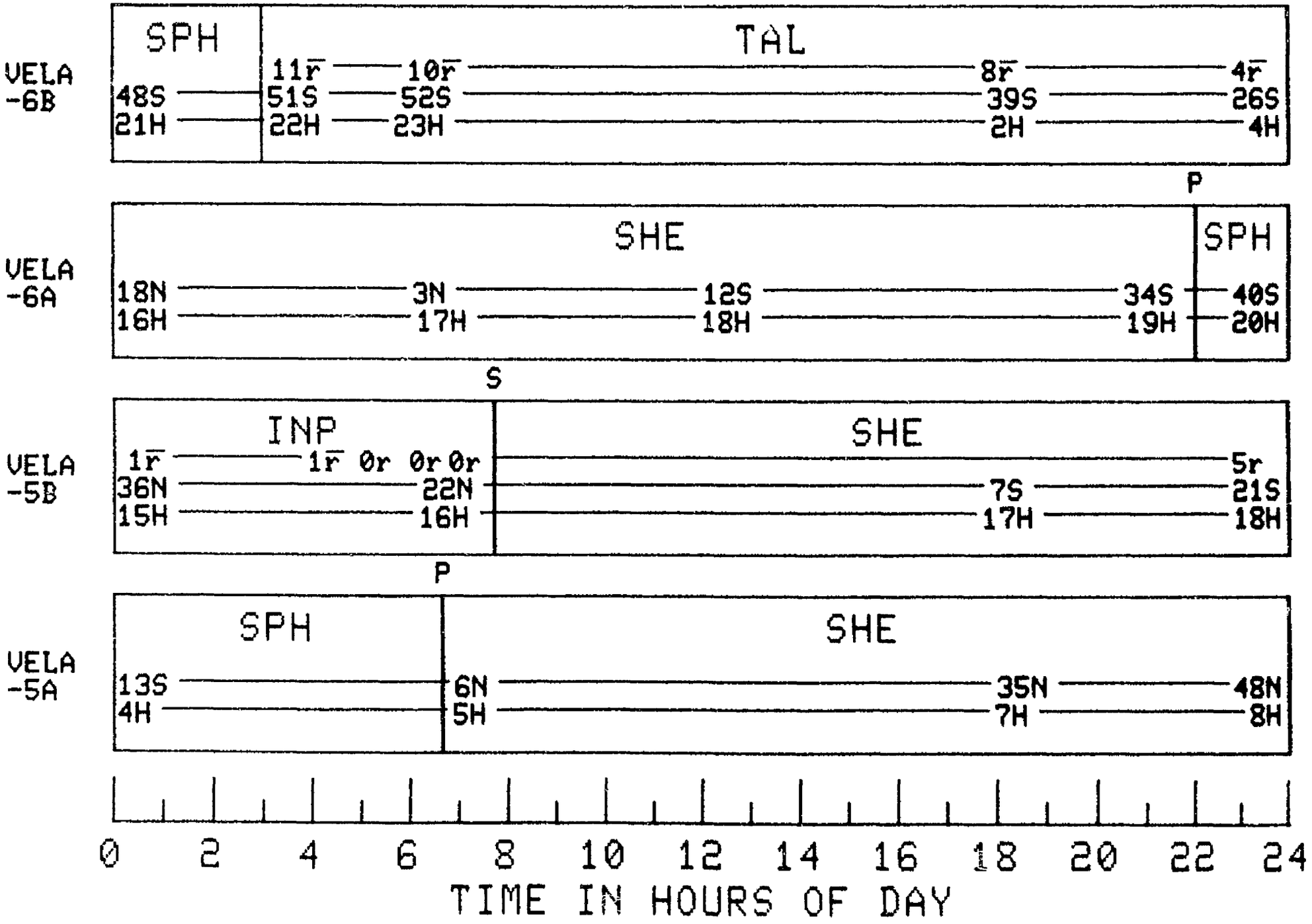
DAY 308 1977


ISEE
-A-B
INP
SHE
SPH
SHE
S
P
P
4r
25N
10H
1r 0r
25N
11H
25N
11H
23N 19N 5S 16N
12H 13H 3H 7H
22N
8H
PROG
NOZ-5
INP
SHE
S
3r
82N
18H
2r 1r 1r 1r 0r
79N 77N
19H 19H
75N 71N 64N
19H 19H
HAWK
EYE-1
SHE
SPH
P
C
65N
15H
57N
16H
67N 72N 63N
18H 21H 1H
56S 16N 32N
14H 15H 15H
0 2 4 6 8 10 12 14 16 18 20 22
TIME IN HOURS OF DAY

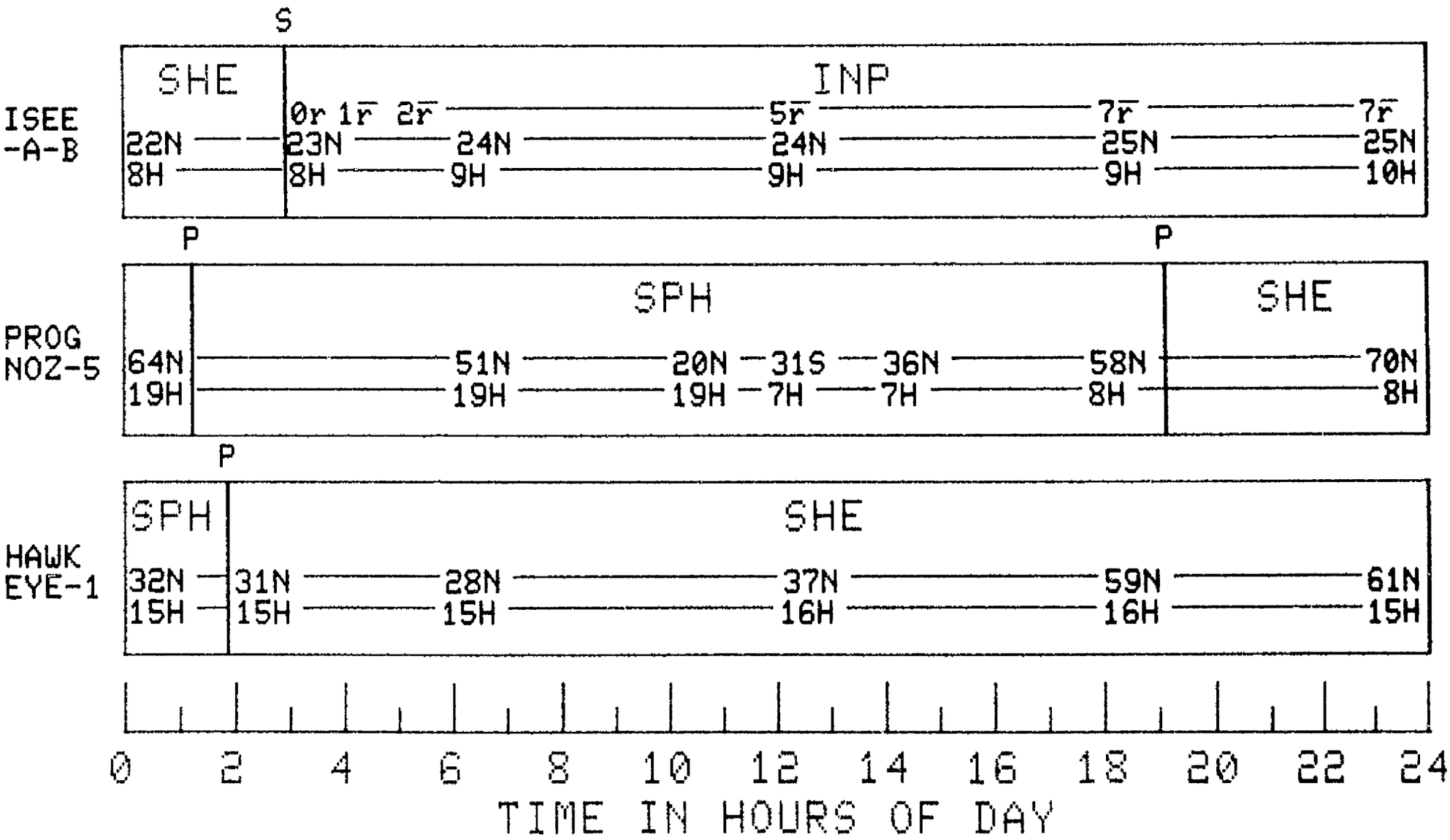
DAY 309 1977

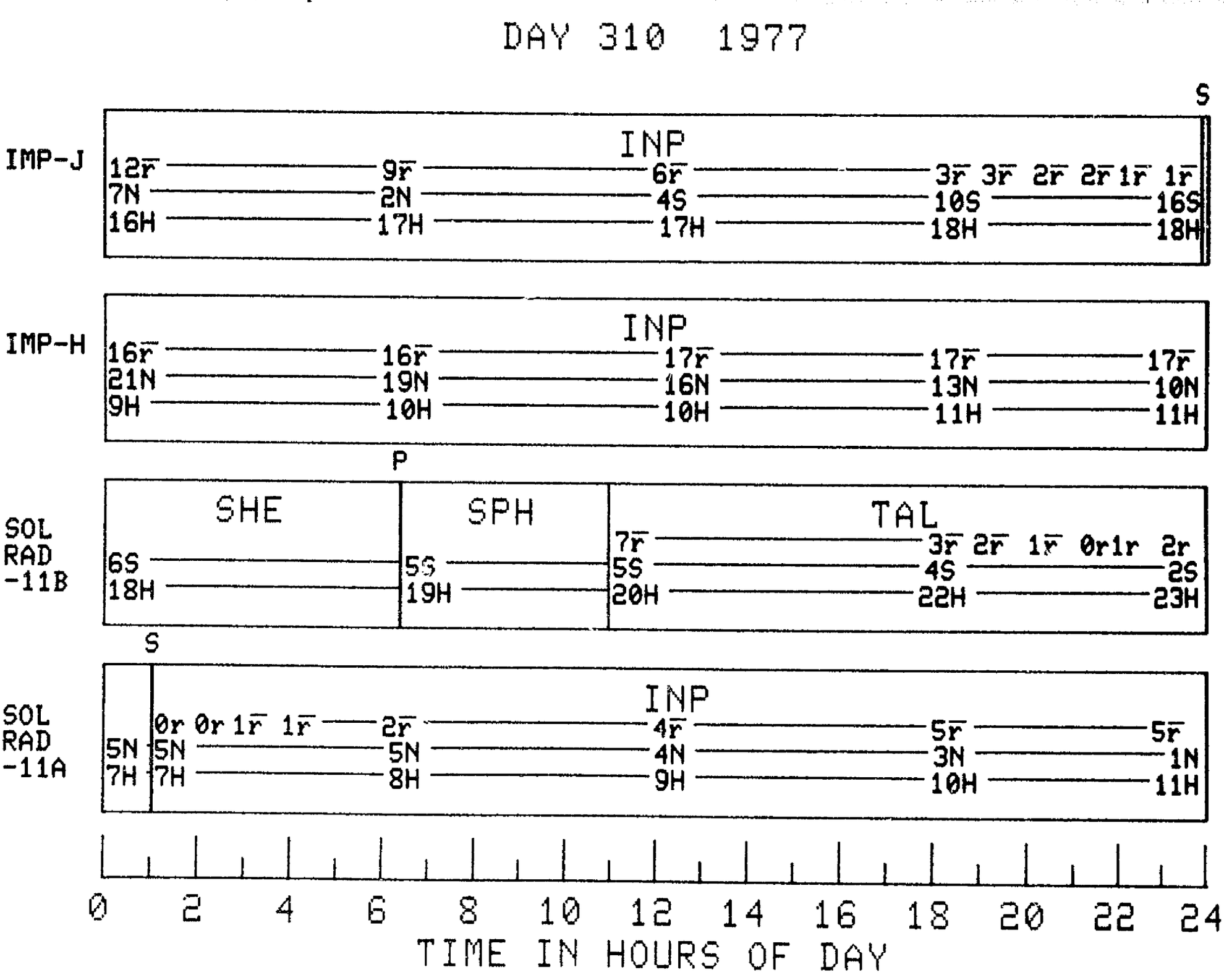

IMP-J
INP
19r 17r 16r 14r 12r
24N 20N 16N 12N 7N
15H 15H 15H 16H 16H
IMP-H
INP
11r 13r 14r 15r 16r
24N 24N 23N 22N 21N
7H 7H 8H 9H 9H
S
SOL RAD -11B
INP
SHE
4r 3r 1r 1r 0r 5r
2S 3S 5S 5S 6S
13H 15H 16H 17H 18H
P
SOL RAD -11A
TAL
SPH
SHE
5r 12r 5N 5N
2N 4N 5H 7H
2H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

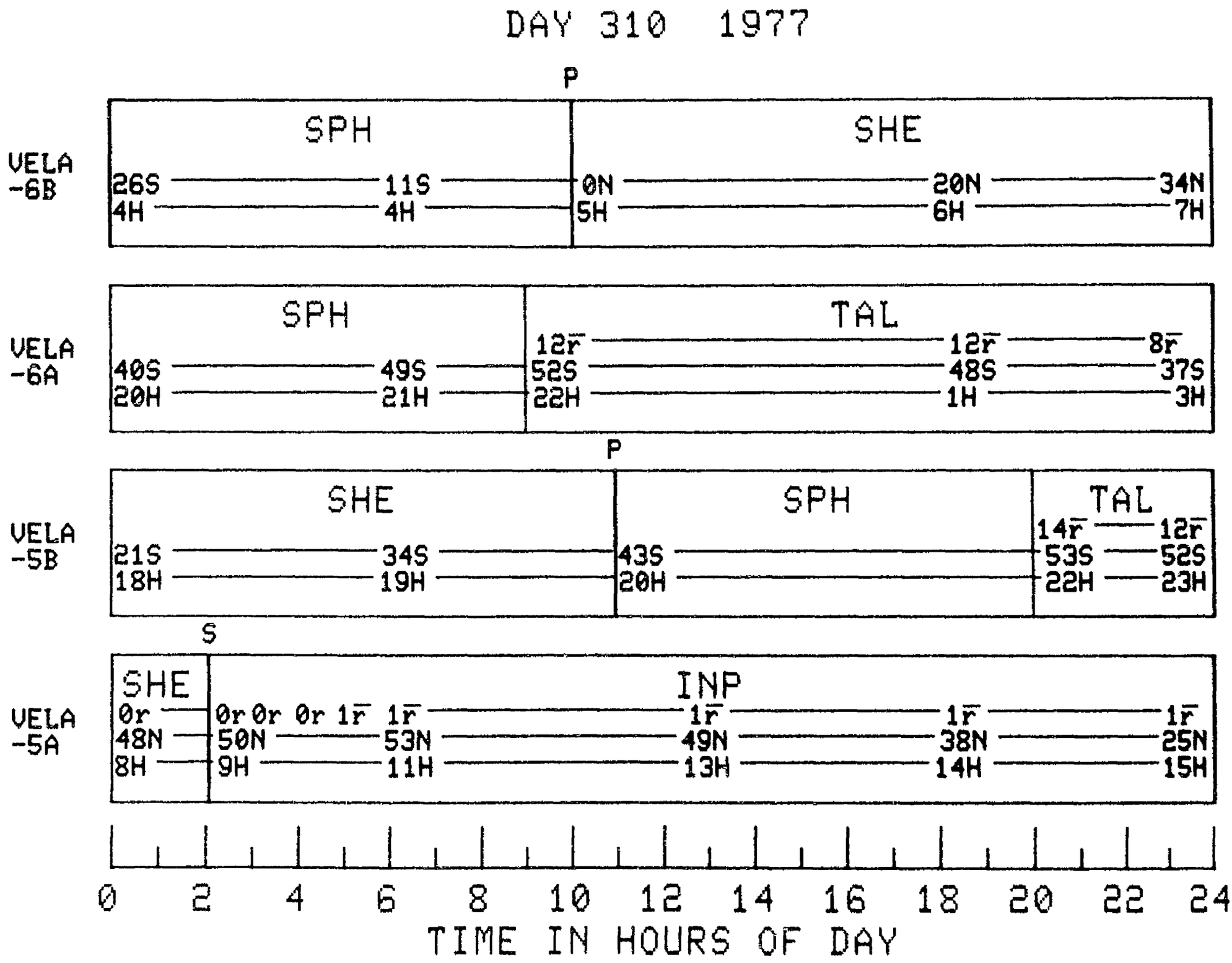
DAY 309 1977


VELA -6B
SPH
TAL
11r 10r 8r 4r
48S 51S 52S 39S 26S
21H 22H 23H 2H 4H
P
VELA -6A
SHE
SPH
18N 3N 12S 34S 40S
16H 17H 18H 19H 20H
S
VELA -5B
INP
SHE
1r 1r 0r 0r 0r 5r
36N 22N 7S 21S
15H 16H 17H 18H
P
VELA -5A
SPH
SHE
13S 6N 35N 48N
4H 5H 7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

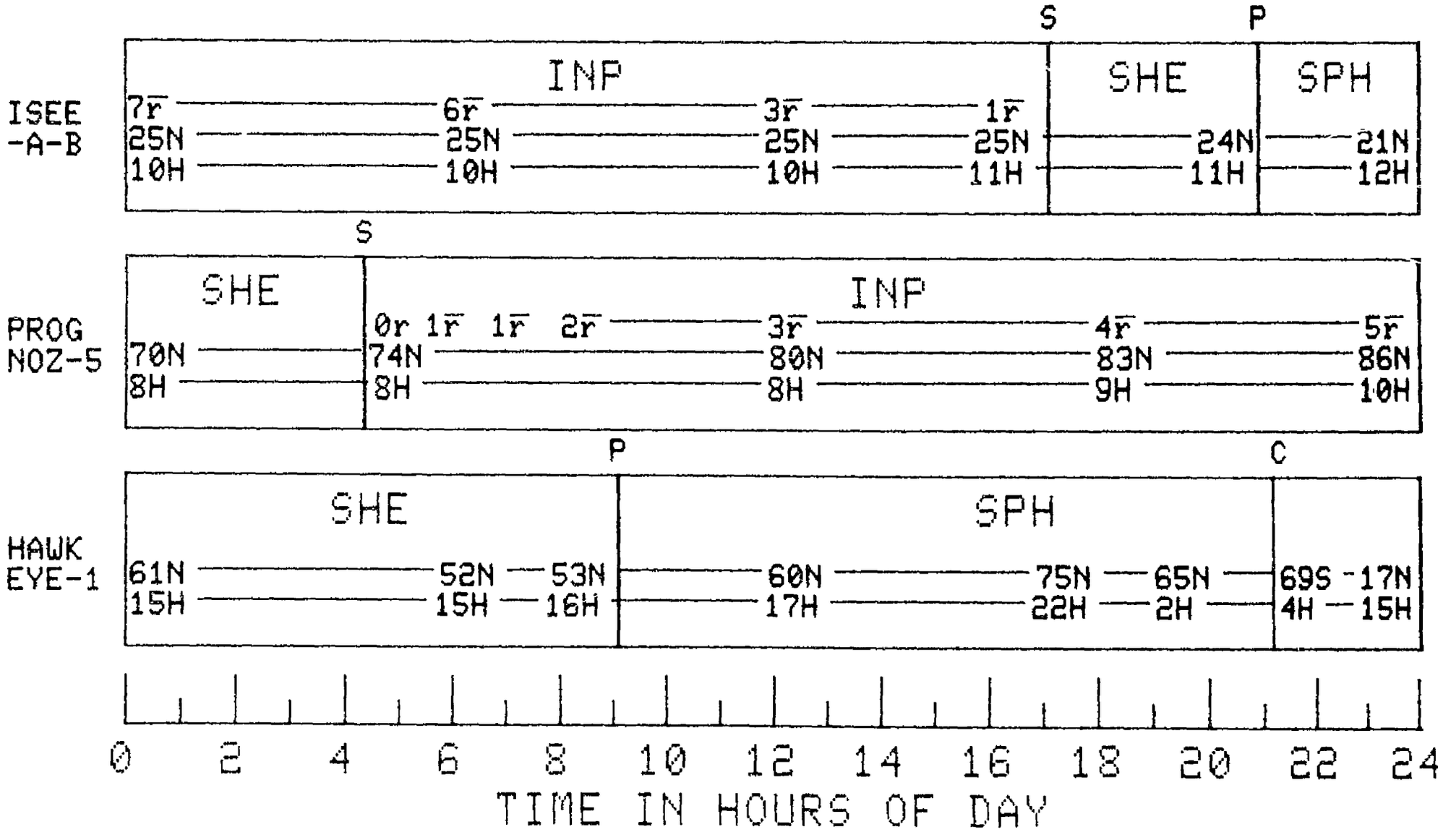
DAY 309 1977


S
SHE
INP
ISEE
-A-B
0r 1r 2r
5r
7r
7r
22N
23N
24N
24N
25N
25N
8H
8H
9H
9H
9H
10H
P
P
SPH
SHE
PROG
NOZ-5
64N
51N
20N
31S
36N
58N
70N
19H
19H
19H
7H
7H
8H
8H
P
SPH
SHE
HAWK
EYE-1
32N
31N
28N
37N
59N
61N
15H
15H
15H
16H
16H
15H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

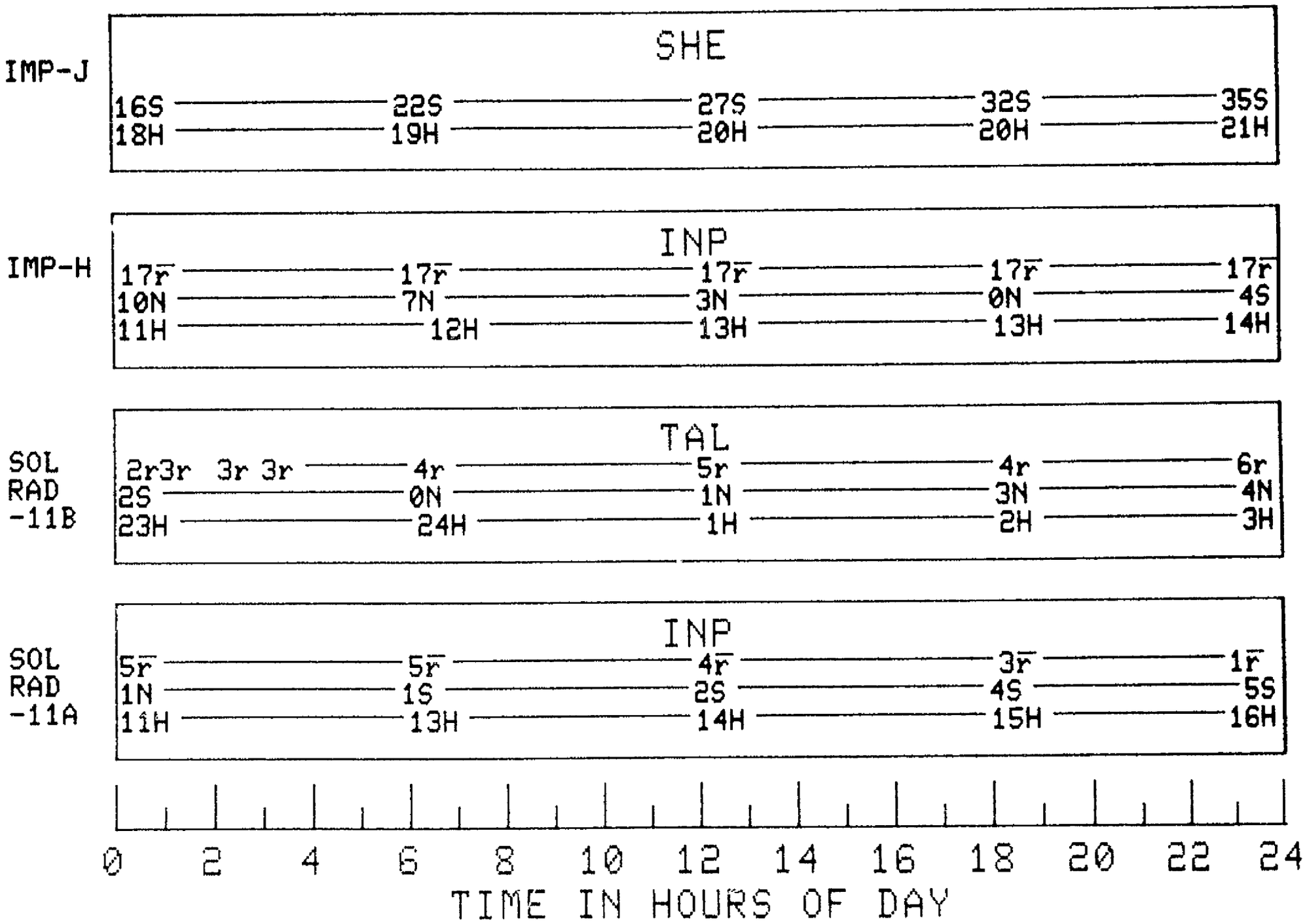

DAY 310 1977
S
IMP-J
INP
12r 9r 6r 3r 3r 2r 2r 1r 1r
7N 2N 4S 10S 16S
16H 17H 17H 18H 18H
IMP-H
INP
16r 16r 17r 17r 17r
21N 19N 16N 13N 10N
9H 10H 10H 11H 11H
P
SOL RAD -11B
SHE
SPH
TAL
6S 5S 7r 3r 2r 1r 0r 1r 2r
18H 19H 5S 4S 2S
20H 22H 23H
S
SOL RAD -11A
INP
5N 0r 0r 1r 1r 2r 4r 5r 5r
7H 5N 5N 4N 3N 1N
7H 8H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 310 1977
P
SPH
SHE
VELA -6B
26S 11S 0N 20N 34N
4H 4H 5H 6H 7H
SPH
TAL
VELA -6A
12r̄ 12r̄ 8r̄
40S 49S 52S 48S 37S
20H 21H 22H 1H 3H
P
SHE
SPH
TAL
VELA -5B
14r̄ 12r̄
21S 34S 43S 53S 52S
18H 19H 20H 22H 23H
S
SHE
INP
VELA -5A
0r 0r 0r 0r 1r̄ 1r̄ 1r̄ 1r̄ 1r̄
48N 50N 53N 49N 38N 25N
8H 9H 11H 13H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

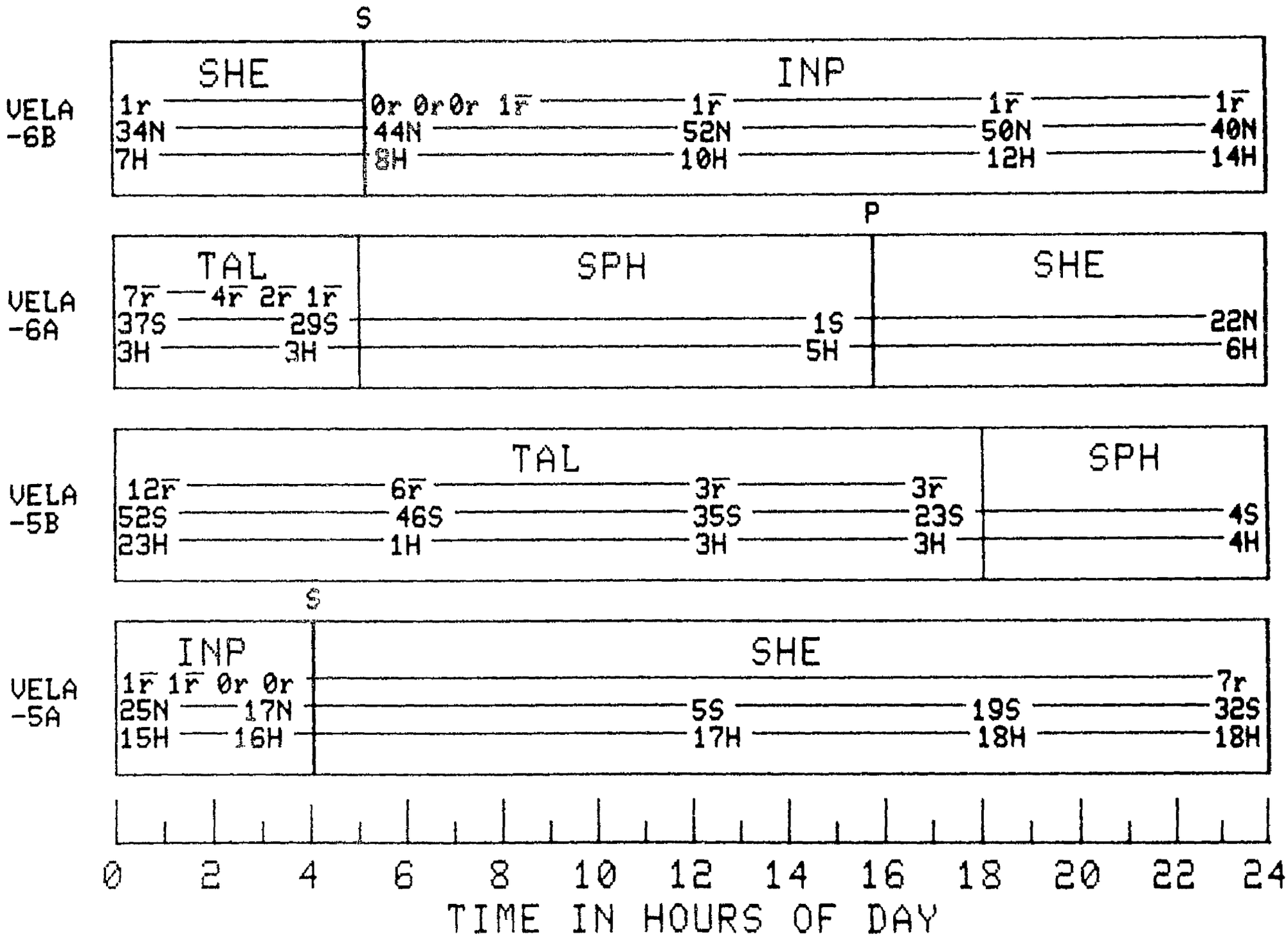
DAY 310 1977


S
P
INF
SHE
SPH
ISEE
-A-B
7r
6r
3r
1r
25N
25N
25N
25N
24N
21N
10H
10H
10H
11H
11H
12H
S
SHE
INF
PROG
NOZ-5
0r 1r 1r 2r
3r
4r
5r
70N
74N
80N
83N
86N
8H
8H
8H
9H
10H
P
C
SHE
SPH
HAWK
EYE-1
61N
52N
53N
60N
75N
65N
69S
17N
15H
15H
16H
17H
22H
2H
4H
15H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

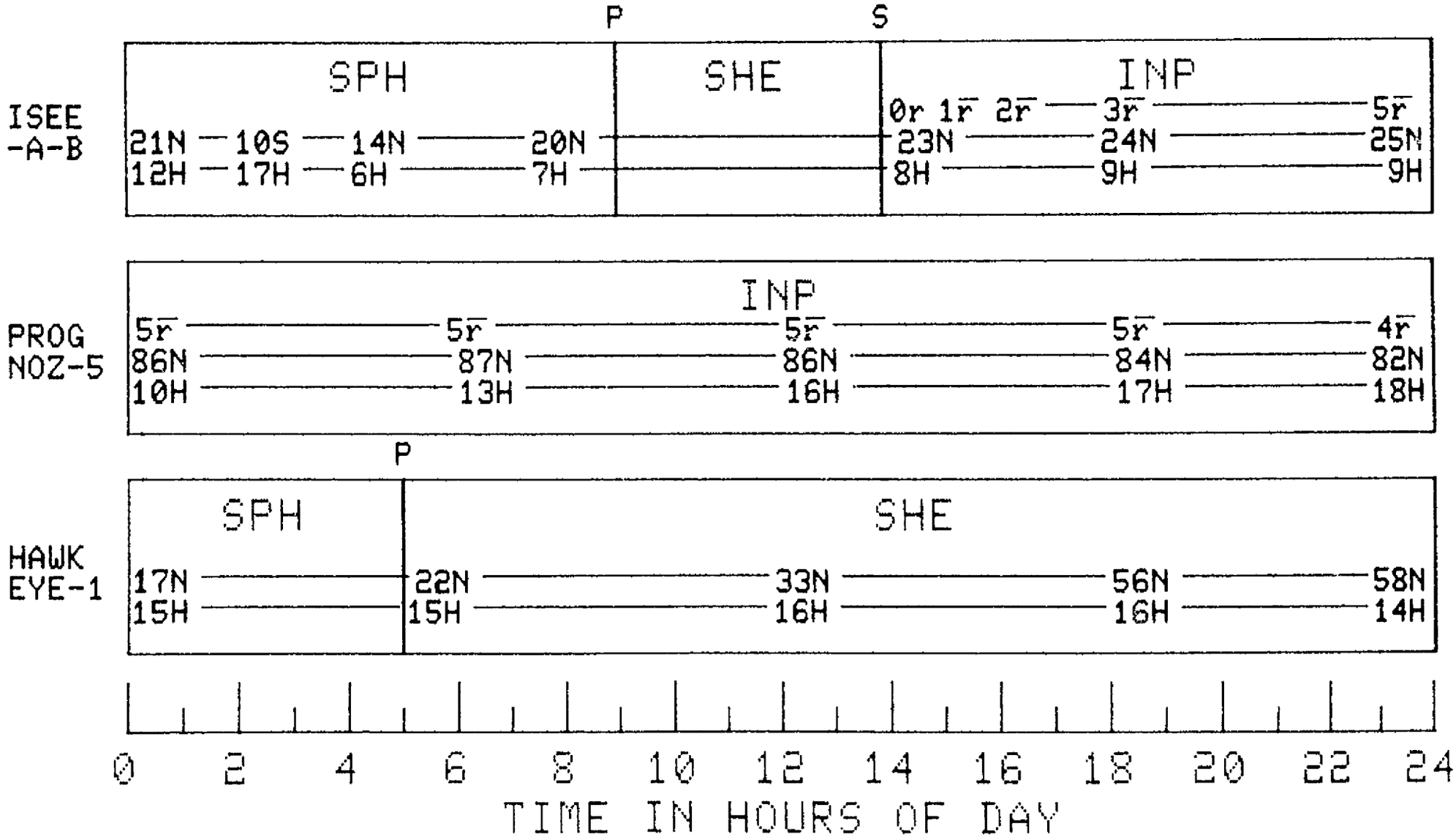
DAY 311 1977


IMP-J
SHE
16S 22S 27S 32S 35S
18H 19H 20H 20H 21H
IMP-H
INP
17r 17r 17r 17r 17r
10N 7N 3N 0N 4S
11H 12H 13H 13H 14H
SOL RAD -11B
TAL
2r3r 3r 3r 4r 5r 4r 6r
2S 0N 1N 3N 4N
23H 24H 1H 2H 3H
SOL RAD -11A
INP
5r 5r 4r 3r 1r
1N 1S 2S 4S 5S
11H 13H 14H 15H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

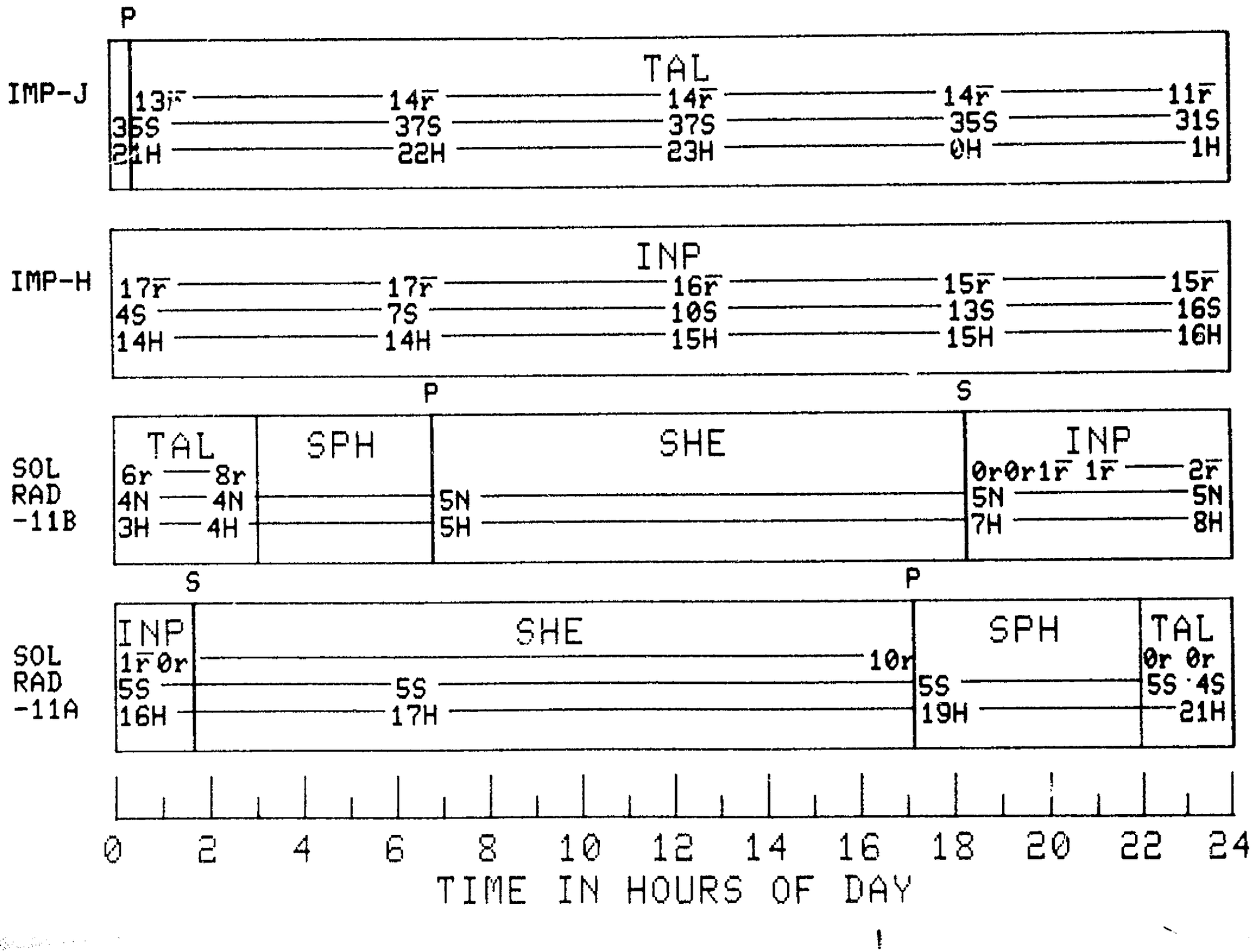
DAY 311 1977

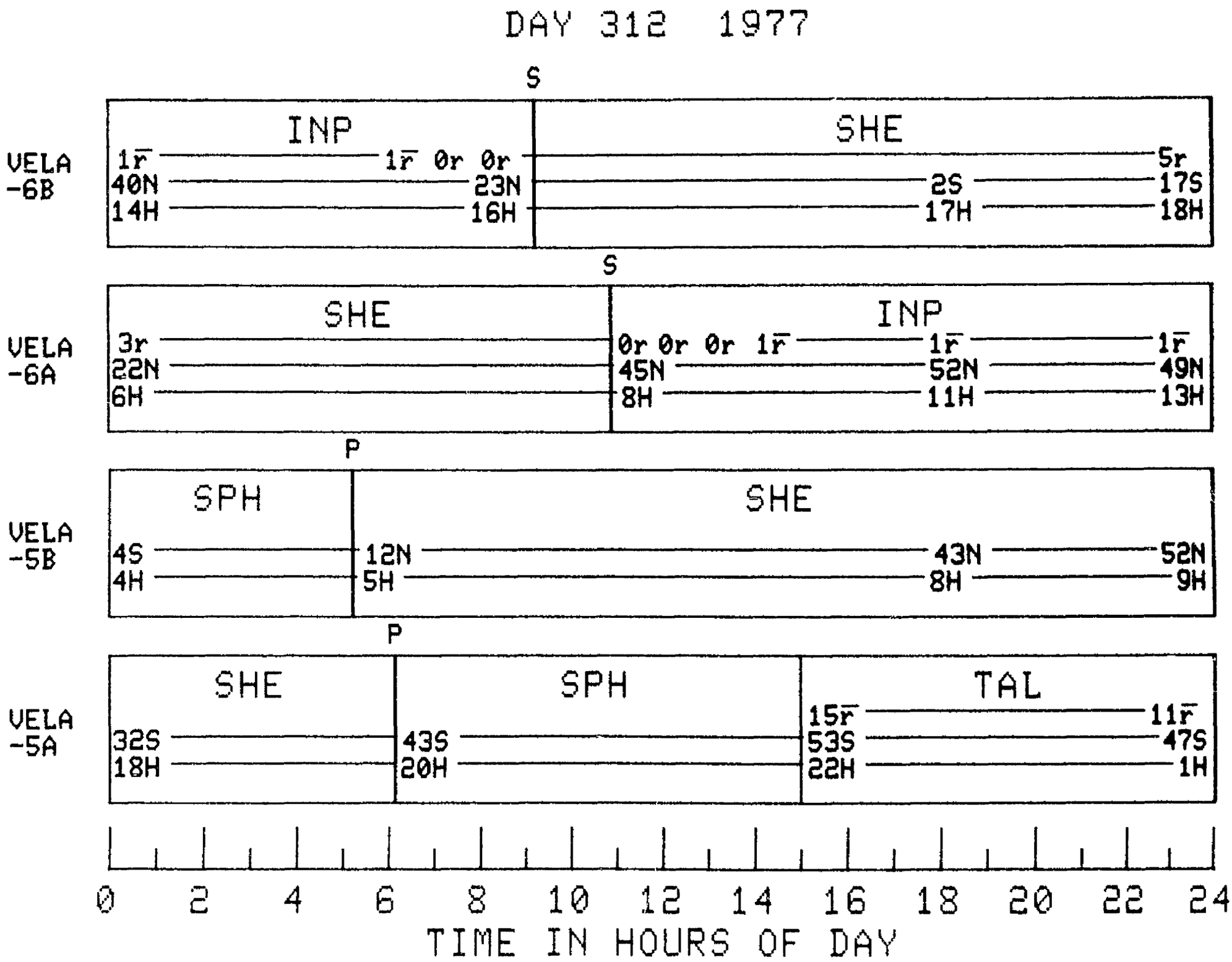

S
SHE
INP
VELA -6B
1r 34N 7H
0r 0r 0r 1r 44N 8H
1r 52N 10H
1r 50N 12H
1r 40N 14H
P
TAL
SPH
SHE
VELA -6A
7r 37S 3H
4r 2r 1r 29S 3H
1S 5H
22N 6H
TAL
SPH
VELA -5B
12r 52S 23H
6r 46S 1H
3r 35S 3H
3r 23S 3H
4S 4H
S
INP
SHE
VELA -5A
1r 1r 0r 0r 25N 15H
17N 16H
5S 17H
19S 18H
7r 32S 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 311 1977

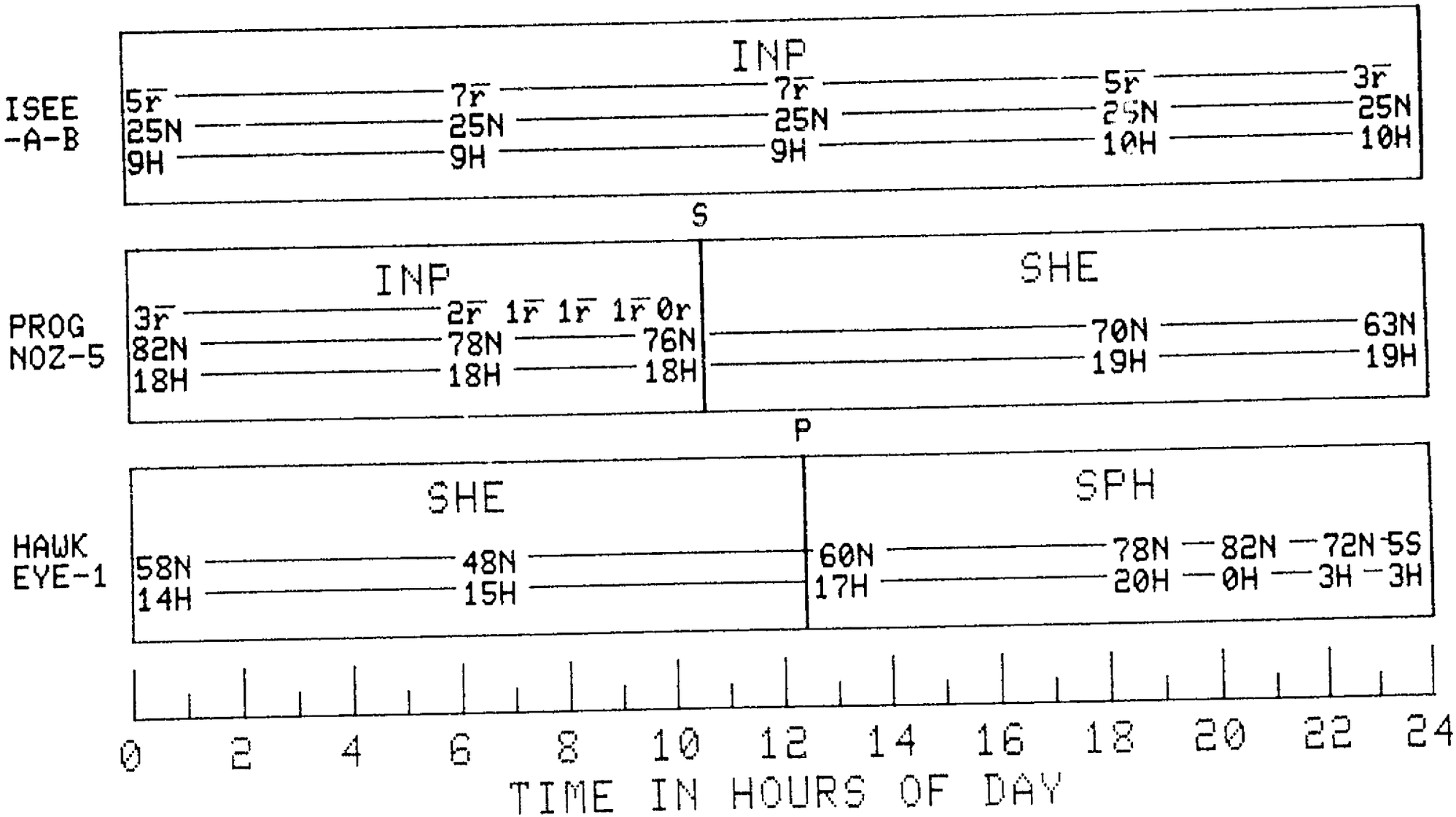

P
S
SPH
SHE
INP
ISEE
-A-B
21N 10S 14N 20N
12H 17H 6H 7H
0r 1r̄ 2r̄ 3r̄ 5r̄
23N 24N 25N
8H 9H 9H
INP
PROG
NOZ-5
5r̄ 5r̄ 5r̄ 5r̄ 4r̄
86N 87N 86N 84N 82N
10H 13H 16H 17H 18H
P
SPH
SHE
HAWK
EYE-1
17N 22N 33N 56N 58N
15H 15H 16H 16H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 312 1977

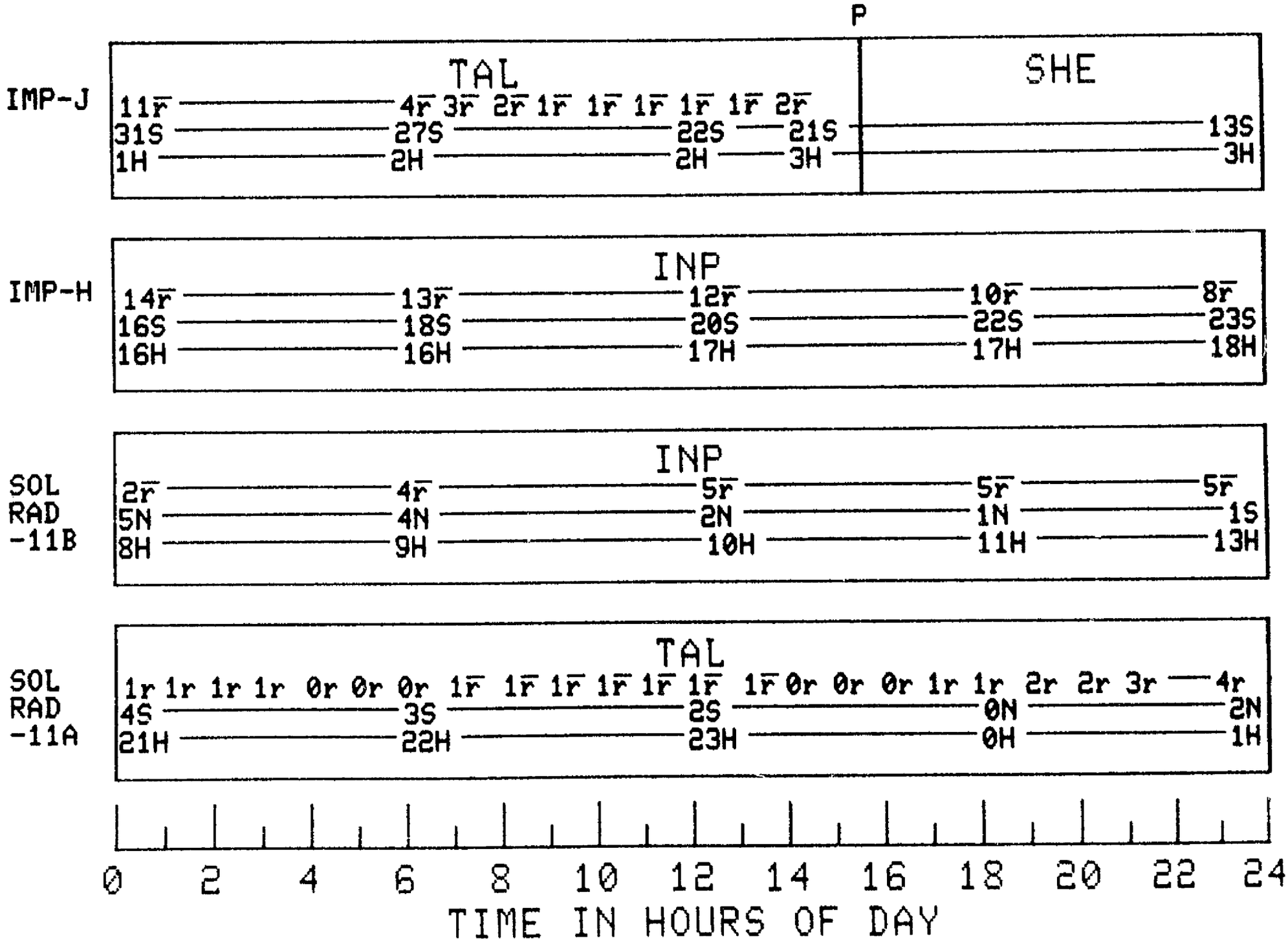

P
IMP-J
TAL
13r 14r 14r 14r 11r
35S 37S 37S 35S 31S
21H 22H 23H 0H 1H
IMP-H
INP
17r 17r 16r 15r 15r
4S 7S 10S 13S 16S
14H 14H 15H 15H 16H
P
S
SOL RAD -11B
TAL
6r 8r
4N 4N
3H 4H
SPH
SHE
5N
5H
INP
0r 0r 1r 1r 2r
5N 5N
7H 8H
S
P
SOL RAD -11A
INP
1r 0r
5S
16H
SHE
10r
5S
17H
SPH
5S
19H
TAL
0r 0r
5S 4S
21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 312 1977
VELA -6B
INP
SHE
S
1r 1r 0r 0r 5r
40N 23N 2S 17S
14H 16H 17H 18H
VELA -6A
SHE
INP
S
3r 0r 0r 0r 1r 1r 1r
22N 45N 52N 49N
6H 8H 11H 13H
VELA -5B
SPH
SHE
P
4S 12N 43N 52N
4H 5H 8H 9H
VELA -5A
SHE
SPH
TAL
P
32S 43S 15r 11r
18H 20H 53S 47S
22H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

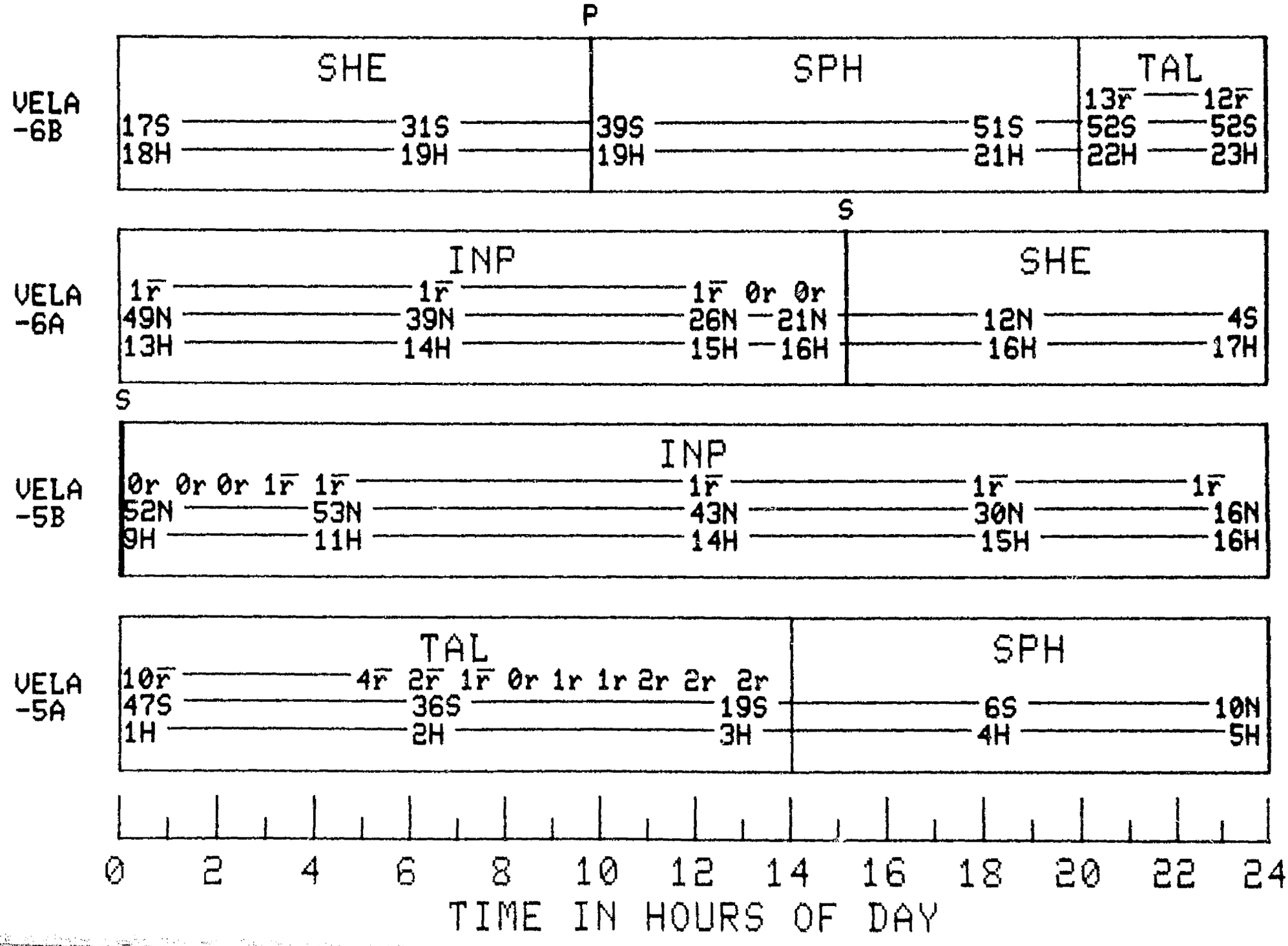
DAY 312 1977


ISEE
-A-B
INP
5r̄ 7r̄ 7r̄ 5r̄ 3r̄
25N 25N 25N 25N 25N
9H 9H 9H 10H 10H
S
PROG
NOZ-5
INP
3r̄ 2r̄ 1r̄ 1r̄ 1r̄ 0r
82N 78N 76N
18H 18H 18H
SHE
70N 63N
19H 19H
P
HAWK
EYE-1
SHE
58N 48N
14H 15H
SPH
60N 78N 82N 72N 55
17H 20H 0H 3H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

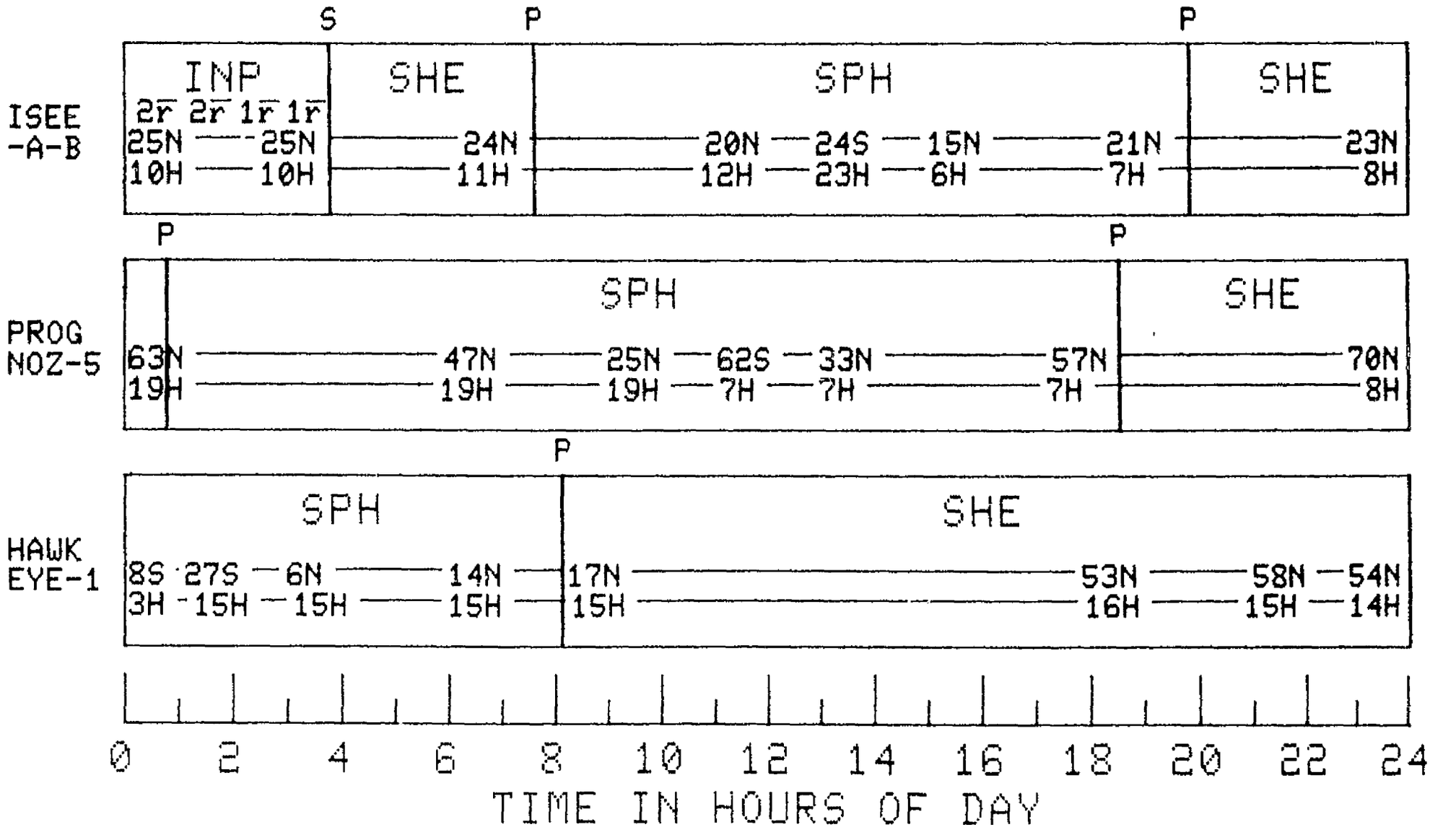
DAY 313 1977

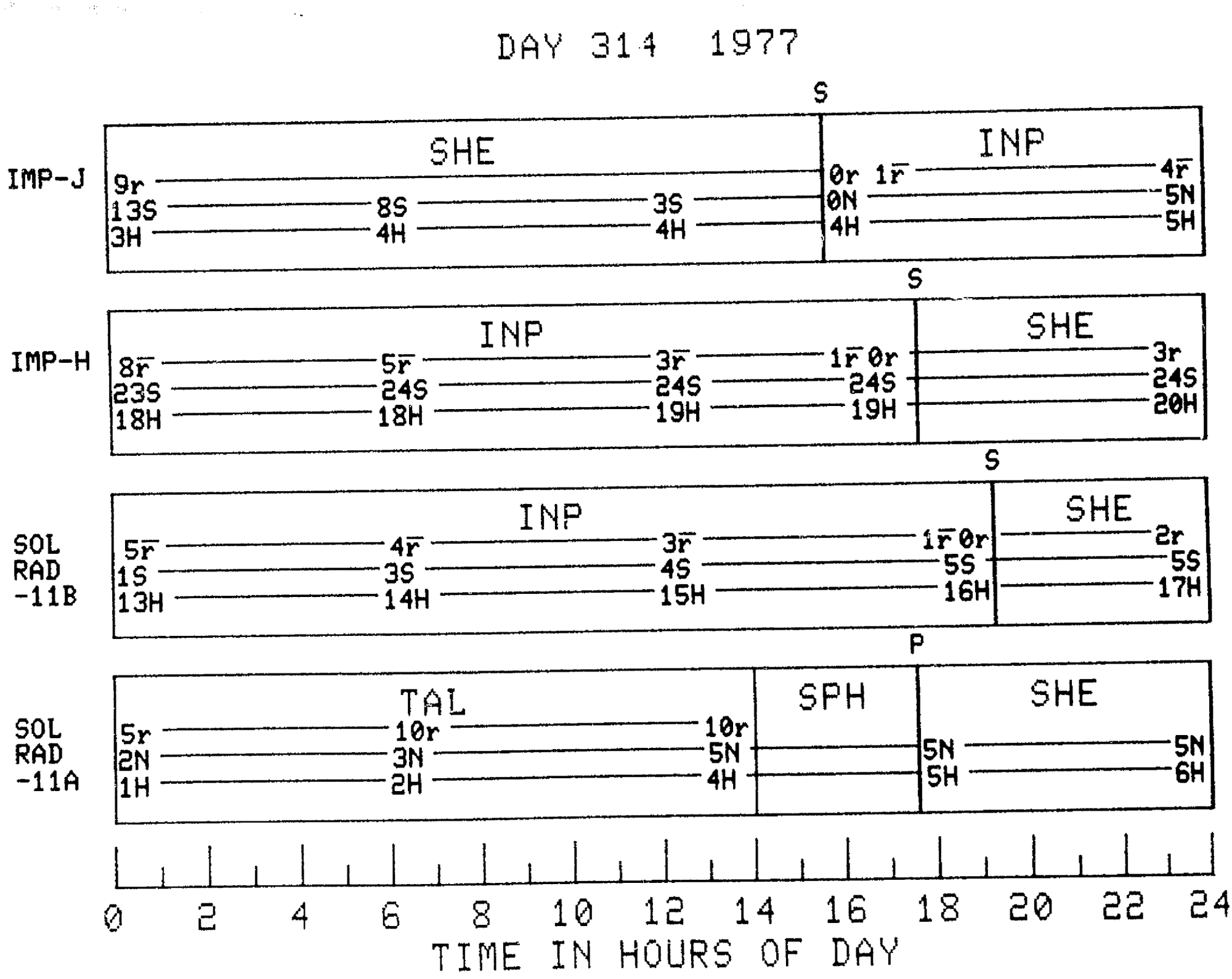

P
IMP-J
TAL
SHE
11r 4r 3r 2r 1r 1r 1r 1r 1r 2r
31S 27S 22S 21S 13S
1H 2H 2H 3H 3H
IMP-H
INP
14r 13r 12r 10r 8r
16S 18S 20S 22S 23S
16H 16H 17H 17H 18H
SOL RAD -11B
INP
2r 4r 5r 5r 5r
5N 4N 2N 1N 1S
8H 9H 10H 11H 13H
SOL RAD -11A
TAL
1r 1r 1r 1r 0r 0r 0r 1r 1r 1r 1r 1r 1r 1r 0r 0r 0r 1r 1r 2r 2r 3r 4r
4S 3S 2S 0N 2N
21H 22H 23H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 313 1977

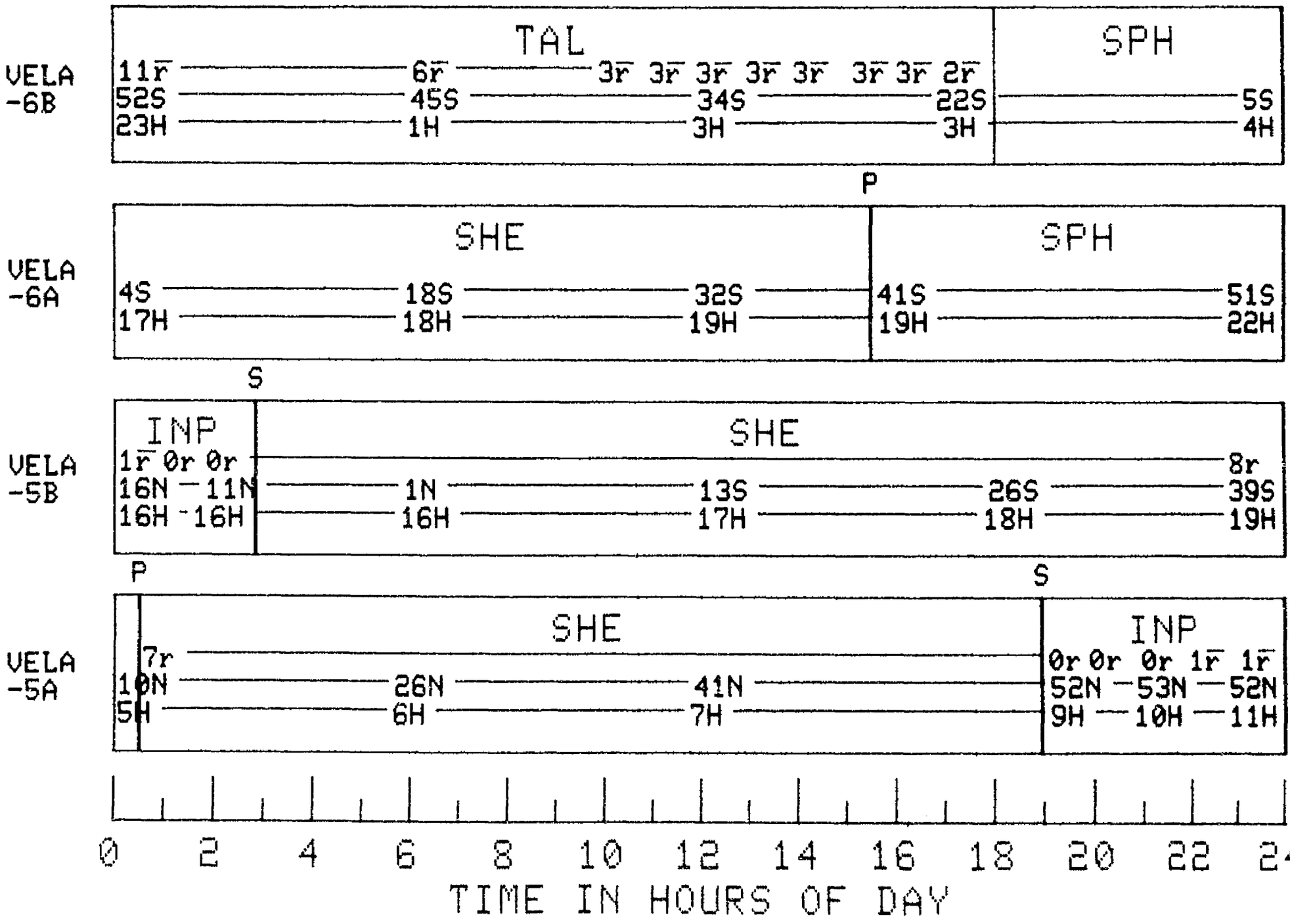

P
VELA -6B
SHE
17S 31S
18H 19H
SPH
39S 51S
19H 21H
TAL
13r 12r
52S 52S
22H 23H
S
VELA -6A
INP
1r 1r 1r 0r 0r
49N 39N 26N 21N
13H 14H 15H 16H
SHE
12N 4S
16H 17H
S
VELA -5B
INP
0r 0r 0r 1r 1r 1r 1r 1r
52N 53N 43N 30N 16N
9H 11H 14H 15H 16H
VELA -5A
TAL
10r 4r 2r 1r 0r 1r 1r 2r 2r 2r
47S 36S 19S
1H 2H 3H
SPH
6S 10N
4H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 313 1977

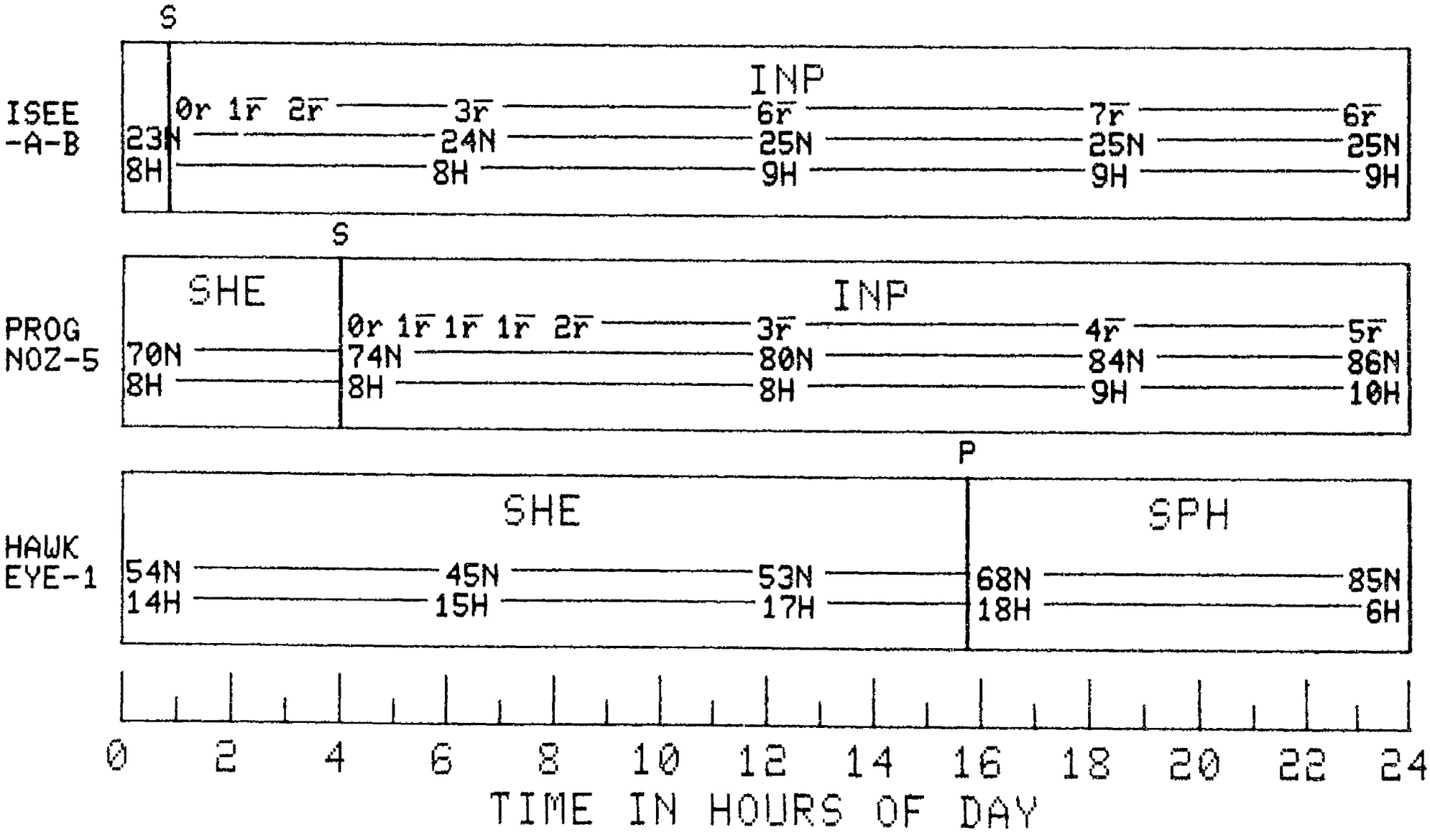

S
P
P
INP
SHE
SPH
SHE
ISEE
-A-B
2r 2r 1r 1r
25N 25N 24N 20N 24S 15N 21N 23N
10H 10H 11H 12H 23H 6H 7H 8H
P
P
SPH
SHE
PROG
NOZ-5
63N 47N 25N 62S 33N 57N 70N
19H 19H 19H 7H 7H 7H 8H
P
SPH
SHE
HAWK
EYE-1
8S 27S 6N 14N 17N 53N 58N 54N
3H 15H 15H 15H 15H 16H 15H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 314 1977
IMP-J
S
SHE
INP
9r
13S
3H
8S
4H
3S
4H
0r 1r̄
0N
4H
4r̄
5N
5H
IMP-H
S
INP
SHE
8r̄
23S
18H
5r̄
24S
18H
3r̄
24S
19H
1r̄ 0r
24S
19H
3r
24S
20H
SOL RAD -11B
S
INP
SHE
5r̄
1S
13H
4r̄
3S
14H
3r̄
4S
15H
1r̄ 0r
5S
16H
2r
5S
17H
SOL RAD -11A
P
TAL
SPH
SHE
5r
2N
1H
10r
3N
2H
10r
5N
4H
5N
5H
5N
6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

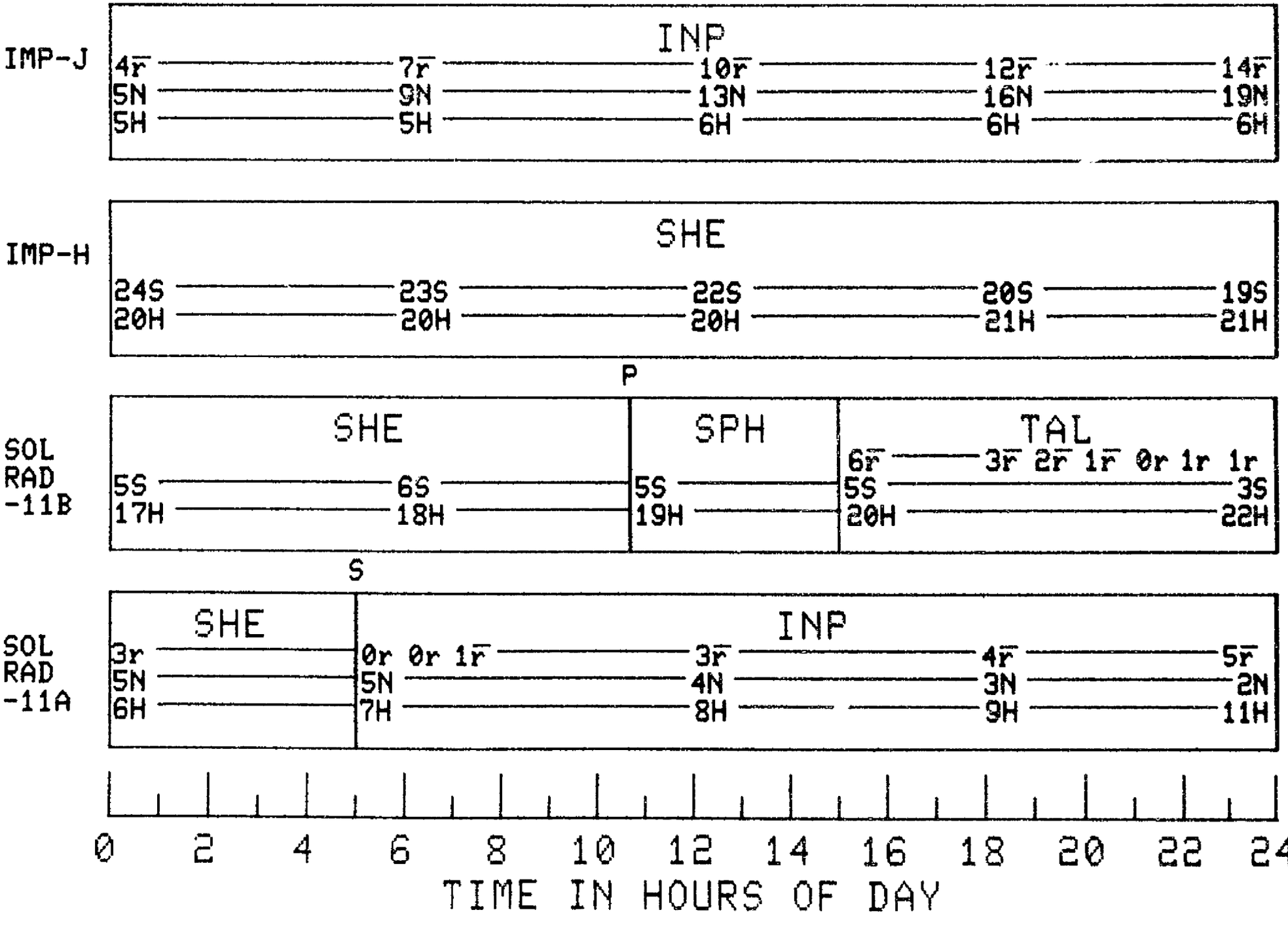
DAY 314 1977

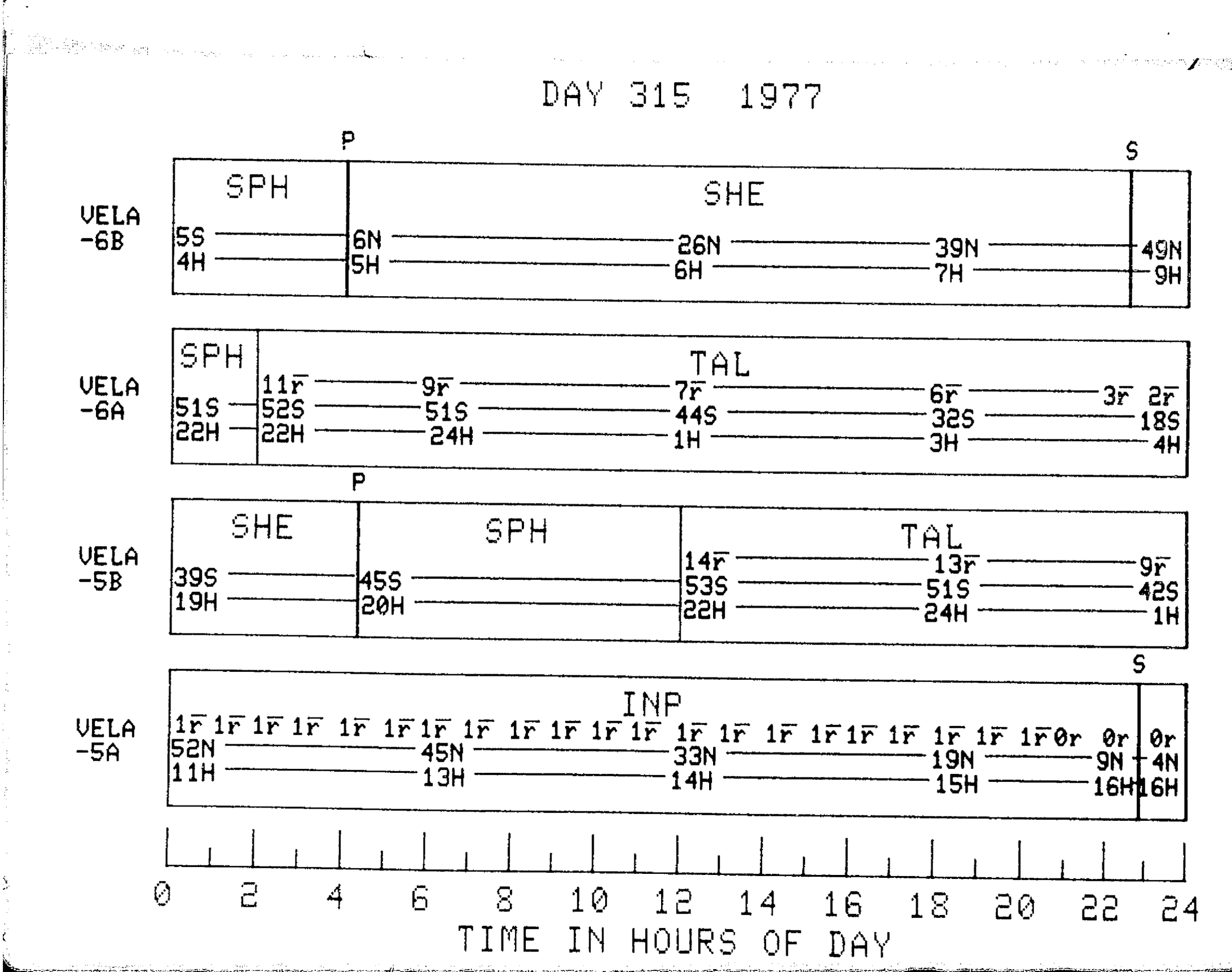

VELA -6B
TAL
SPH
11r 6r 3r 3r 3r 3r 3r 3r 3r 2r
52S 45S 34S 22S 5S
23H 1H 3H 3H 4H
P
VELA -6A
SHE
SPH
4S 18S 32S 41S 51S
17H 18H 19H 19H 22H
S
VELA -5B
INP
SHE
1r 0r 0r 8r
16N 11N 1N 13S 26S 39S
16H 16H 16H 17H 18H 19H
P
S
VELA -5A
SHE
INP
7r 0r 0r 0r 1r 1r
10N 26N 41N 52N 53N 52N
5H 6H 7H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 314 1977

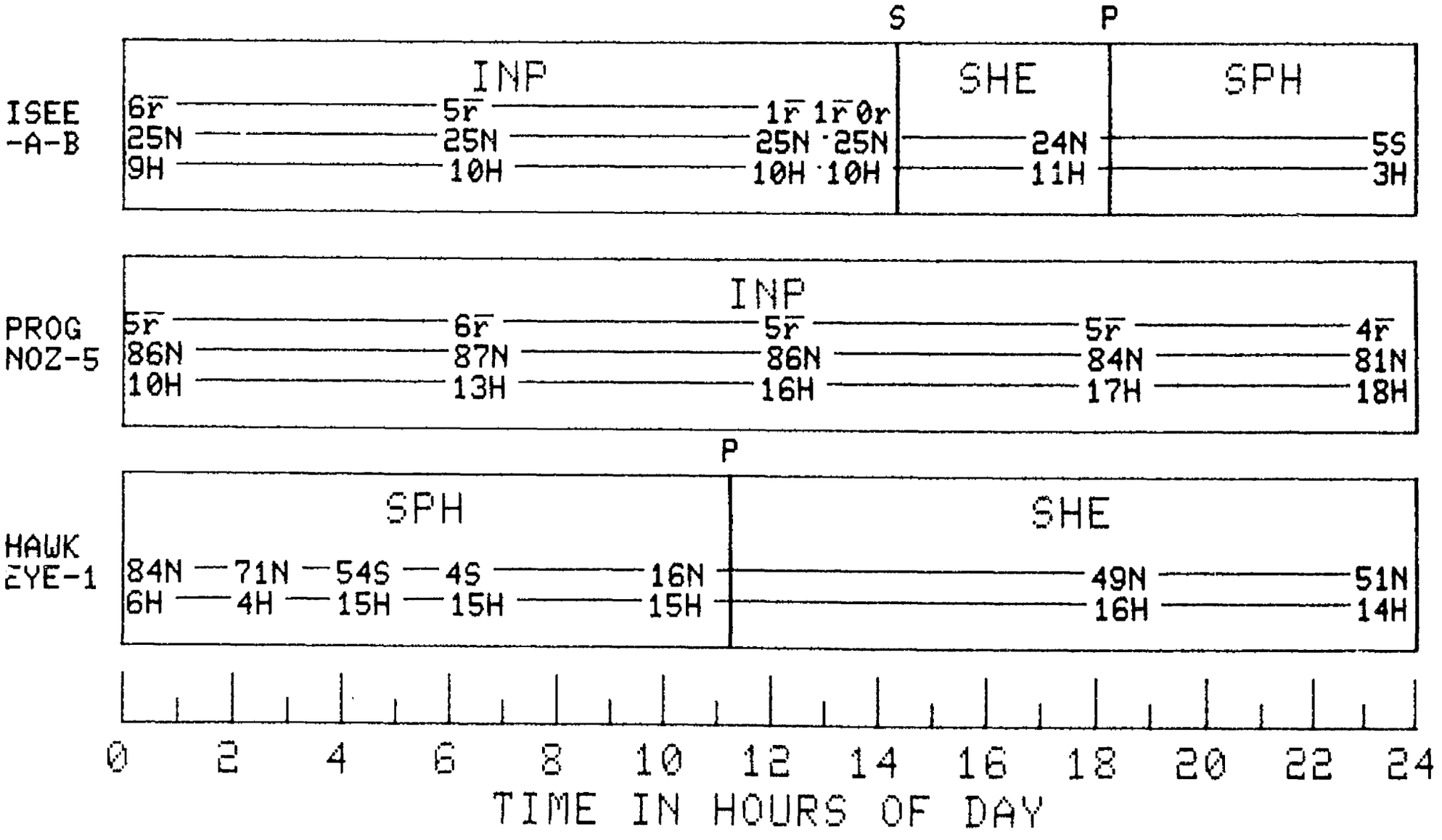

S
INP
ISEE
-A-B
0r 1r 2r
3r
6r
7r
6r
23N
24N
25N
25N
25N
8H
8H
9H
9H
9H
S
SHE
INP
PROG
NOZ-5
0r 1r 1r 1r 2r
3r
4r
5r
70N
74N
80N
84N
86N
8H
8H
8H
9H
10H
P
SHE
SPH
HAWK
EYE-1
54N
45N
53N
68N
85N
14H
15H
17H
18H
6H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 315 1977

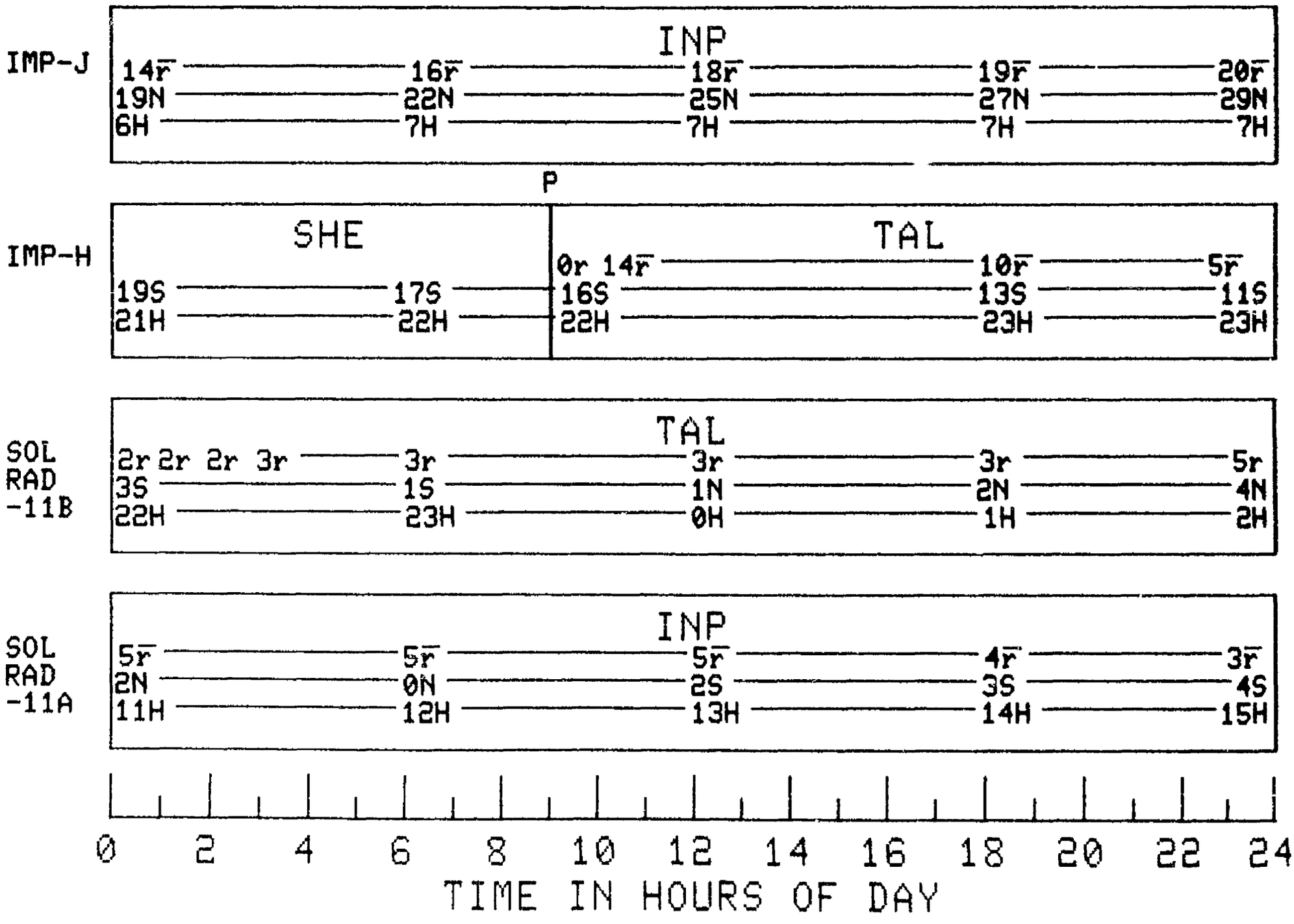

IMP-J
INP
4r 7r 10r 12r 14r
5N 9N 13N 16N 19N
5H 5H 6H 6H 6H
IMP-H
SHE
24S 23S 22S 20S 19S
20H 20H 20H 21H 21H
P
SOL RAD -11B
SHE
SPH
TAL
6r 3r 2r 1r 0r 1r 1r
5S 6S 5S 3S
17H 18H 19H 20H 22H
S
SOL RAD -11A
SHE
INP
3r 0r 0r 1r 3r 4r 5r
5N 5N 4N 3N 2N
6H 7H 8H 9H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 315 1977
P
S
VELA -6B
SPH
SHE
5S
4H
6N
5H
26N
6H
39N
7H
49N
9H
VELA -6A
SPH
TAL
51S
22H
11r̄
52S
22H
9r̄
51S
24H
7r̄
44S
1H
6r̄
32S
3H
3r̄
2r̄
18S
4H
P
VELA -5B
SHE
SPH
TAL
39S
19H
45S
20H
14r̄
53S
22H
13r̄
51S
24H
9r̄
42S
1H
S
VELA -5A
INP
52N
11H
45N
13H
33N
14H
19N
15H
9N
16H
4N
16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

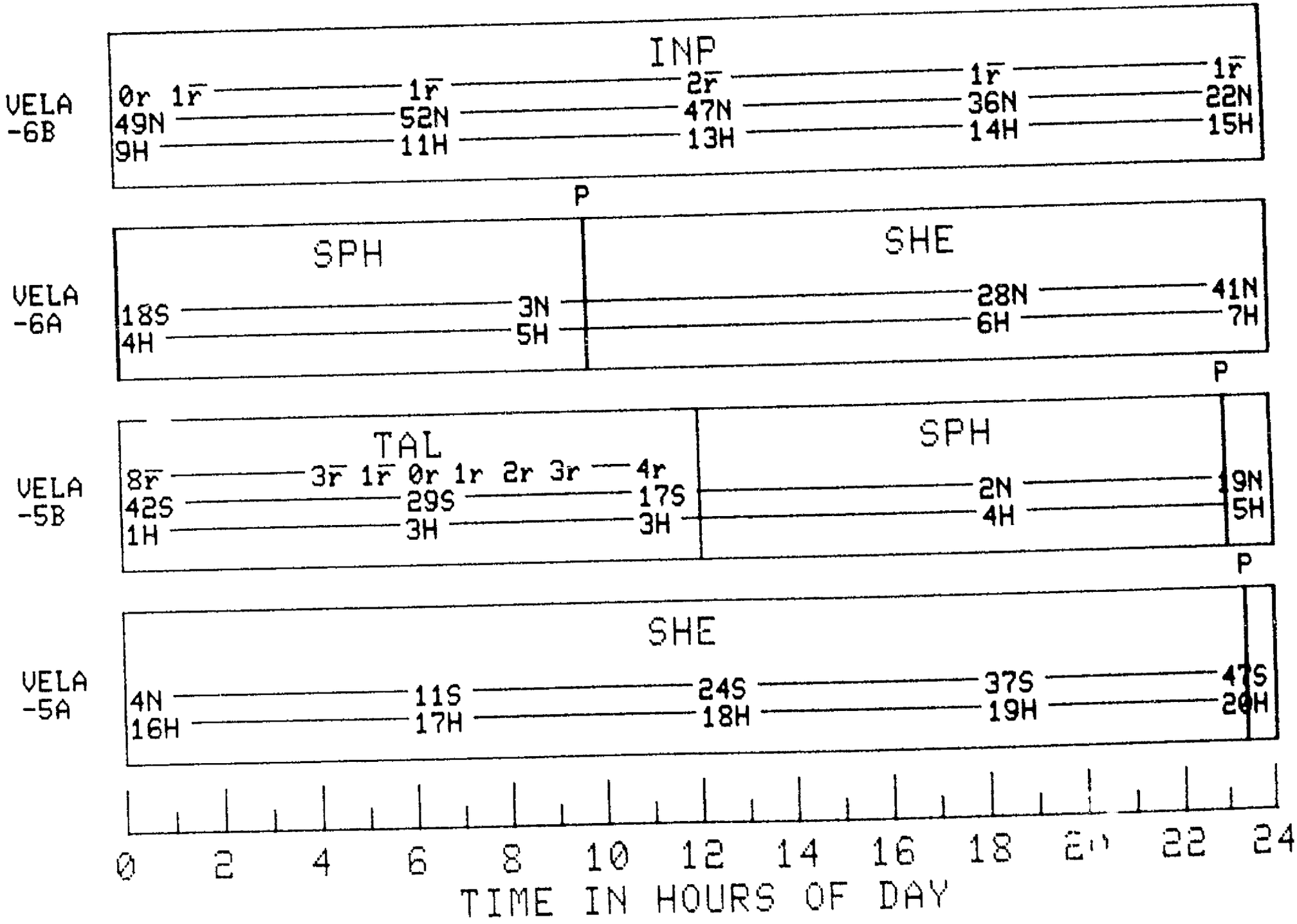
DAY 315 1977


S
P
ISEE
-A-B
INP
SHE
SPH
6r 5r 1r 1r 0r
25N 25N 25N 25N 24N 5S
9H 10H 10H 10H 11H 3H
PROG
NOZ-5
INP
5r 6r 5r 5r 4r
86N 87N 86N 84N 81N
10H 13H 16H 17H 18H
P
HAWK
EYE-1
SPH
SHE
84N 71N 54S 4S 16N 49N 51N
6H 4H 15H 15H 15H 16H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

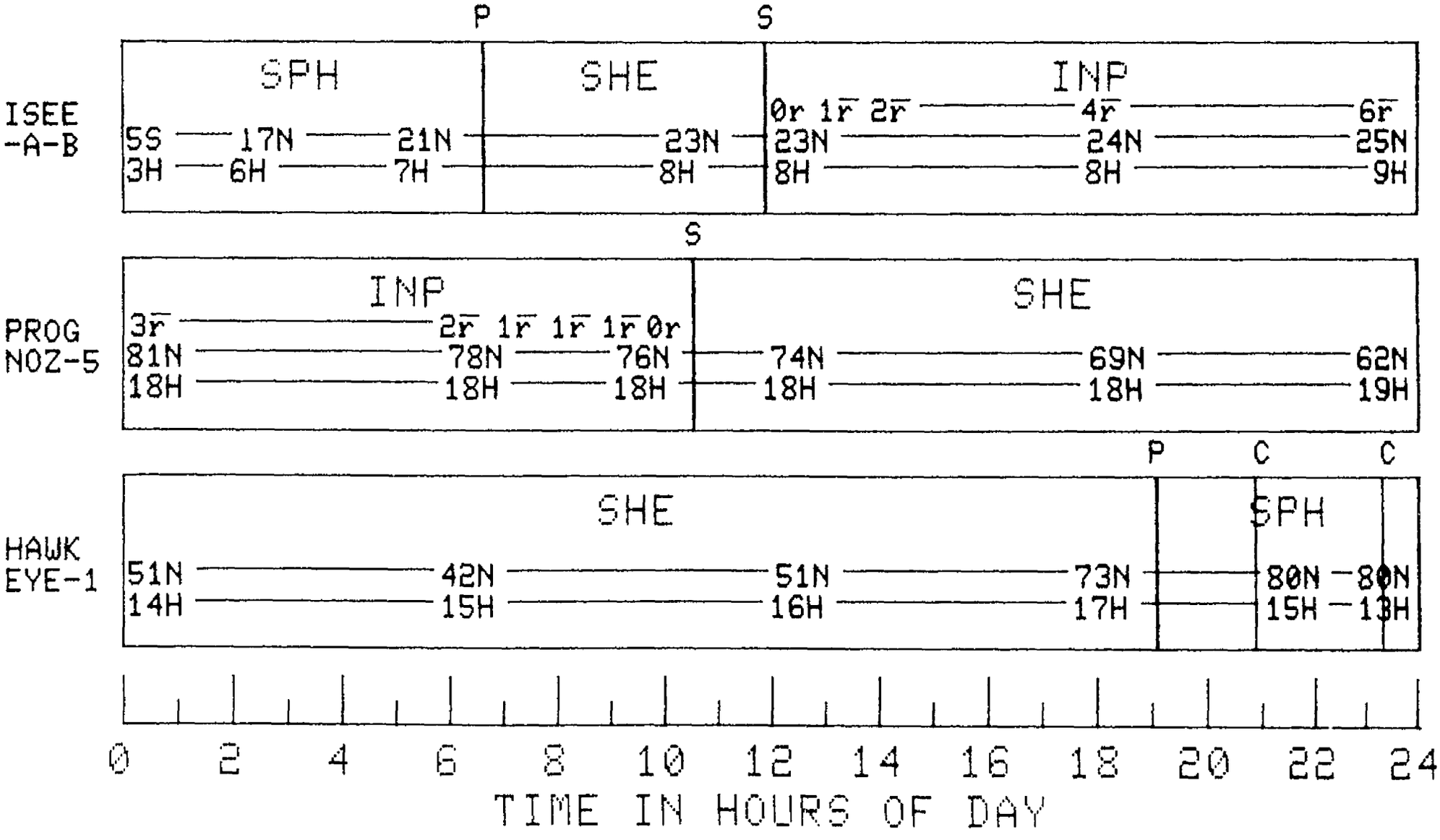
DAY 316 1977


IMP-J
INP
14r̄ 16r̄ 18r̄ 19r̄ 20r̄
19N 22N 25N 27N 29N
6H 7H 7H 7H 7H
P
IMP-H
SHE
19S 17S
21H 22H
TAL
0r 14r̄ 10r̄ 5r̄
16S 13S 11S
22H 23H 23H
SOL RAD -11B
TAL
2r 2r 2r 3r 3r 3r 3r 5r
3S 1S 1N 2N 4N
22H 23H 0H 1H 2H
SOL RAD -11A
INP
5r̄ 5r̄ 5r̄ 4r̄ 3r̄
2N 0N 2S 3S 4S
11H 12H 13H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

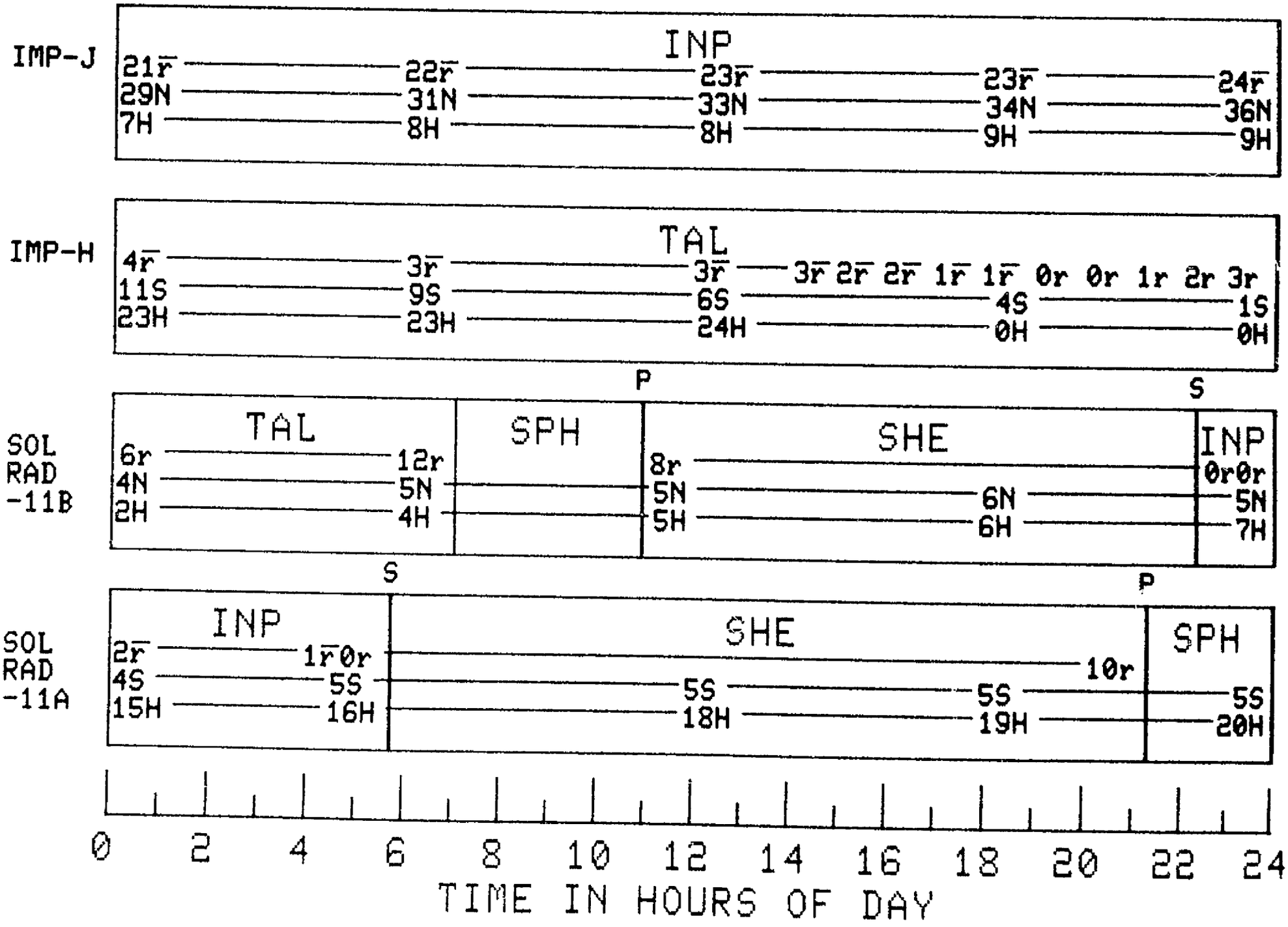
DAY 316 1977

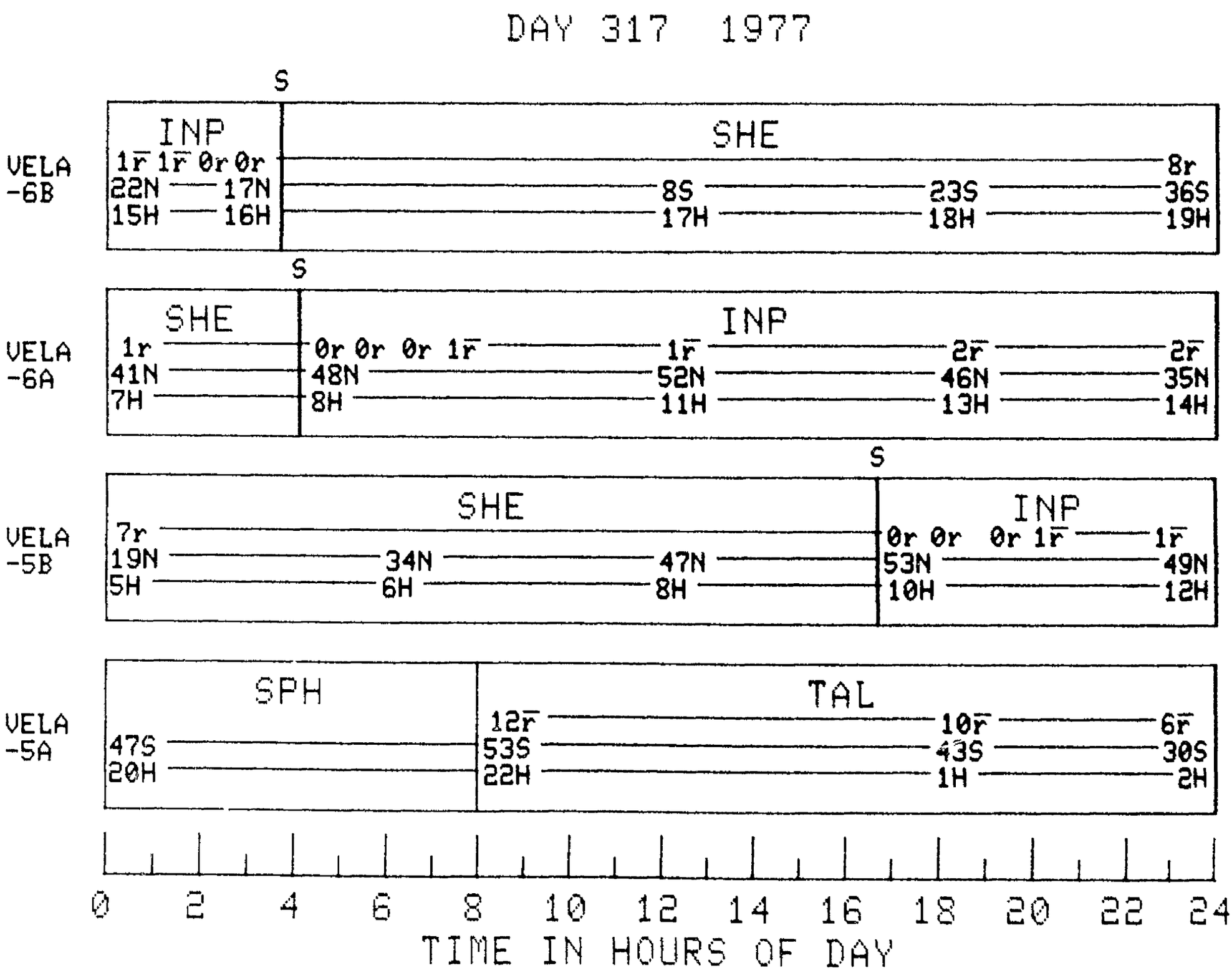

VELA -6B
INP
0r 1r
49N
9H
1r
52N
11H
2r
47N
13H
1r
36N
14H
1r
22N
15H
P
VELA -6A
SPH
18S
4H
3N
5H
SHE
28N
6H
41N
7H
P
VELA -5B
TAL
8r
42S
1H
3r 1r 0r 1r 2r 3r
29S
3H
4r
17S
3H
SPH
2N
4H
9N
5H
P
VELA -5A
SHE
4N
16H
11S
17H
24S
18H
37S
19H
47S
20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 316 1977

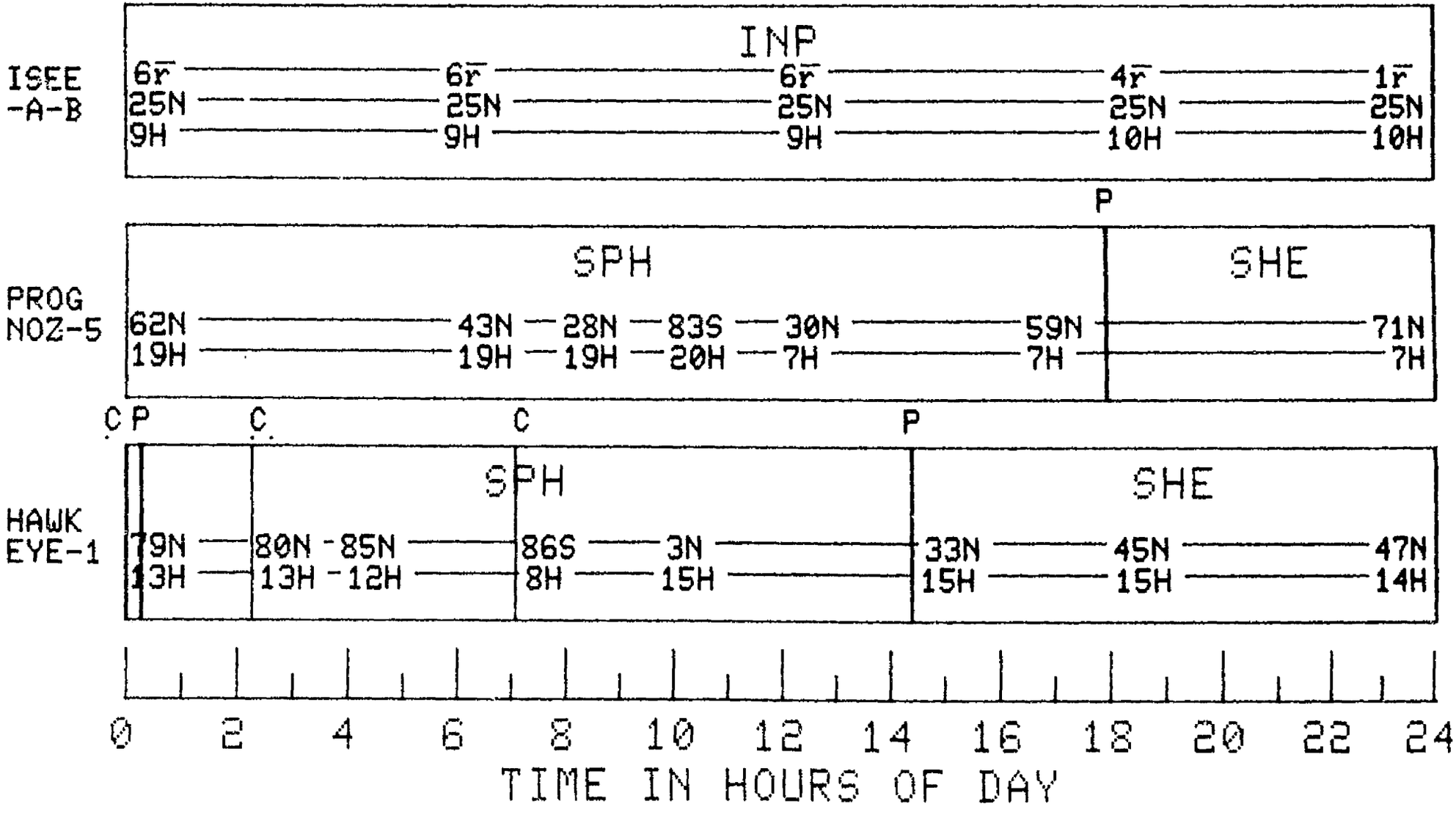

P
S
SPH
SHE
INP
ISEE
-A-B
5S 17N 21N 23N
3H 6H 7H 8H
0r 1r 2r 4r 6r
23N 24N 25N
8H 8H 9H
S
INP
SHE
PROG
NOZ-5
3r 2r 1r 1r 1r 0r
81N 78N 76N 74N 69N 62N
18H 18H 18H 18H 18H 19H
P
C
C
SHE
SPH
HAWK
EYE-1
51N 42N 51N 73N 80N 80N
14H 15H 16H 17H 15H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 317 1977

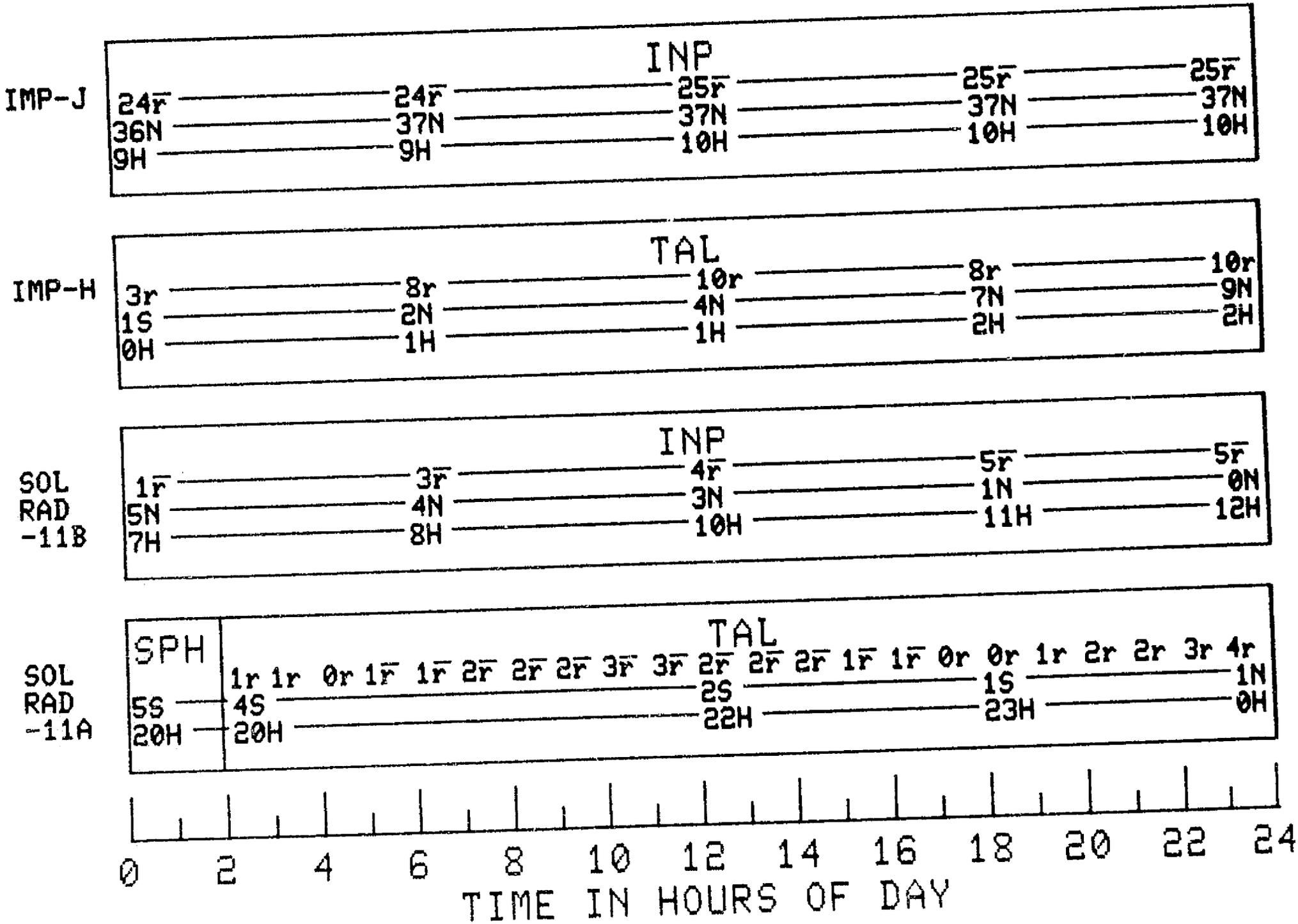

IMP-J
INP
21r̄ 22r̄ 23r̄ 23r̄ 24r̄
29N 31N 33N 34N 36N
7H 8H 8H 9H 9H
IMP-H
TAL
4r̄ 3r̄ 3r̄ 3r̄ 2r̄ 2r̄ 1r̄ 1r̄ 0r 0r 1r 2r 3r
11S 9S 6S 4S 1S
23H 23H 24H 0H 0H
P
S
SOL
RAD
-11B
TAL
SPH
SHE
INP
6r 12r 8r 0r0r
4N 5N 5N 6N 5N
2H 4H 5H 6H 7H
S
P
SOL
RAD
-11A
INP
SHE
SPH
2r̄ 1r̄0r 10r
4S 5S 5S 5S 5S
15H 16H 18H 19H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 317 1977
VELA -6B
S
INP
SHE
1r 1r 0r 0r
8r
22N 17N
8S 23S 36S
15H 16H
17H 18H 19H
VELA -6A
S
SHE
INP
1r
0r 0r 0r 1r
1r
2r
2r
41N
48N
52N
46N
35N
7H
8H
11H
13H
14H
VELA -5B
S
SHE
INP
7r
0r 0r 0r 1r
1r
19N
34N
47N
53N
49N
5H
6H
8H
10H
12H
VELA -5A
SPH
TAL
12r
10r
6r
47S
53S
43S
30S
20H
22H
1H
2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

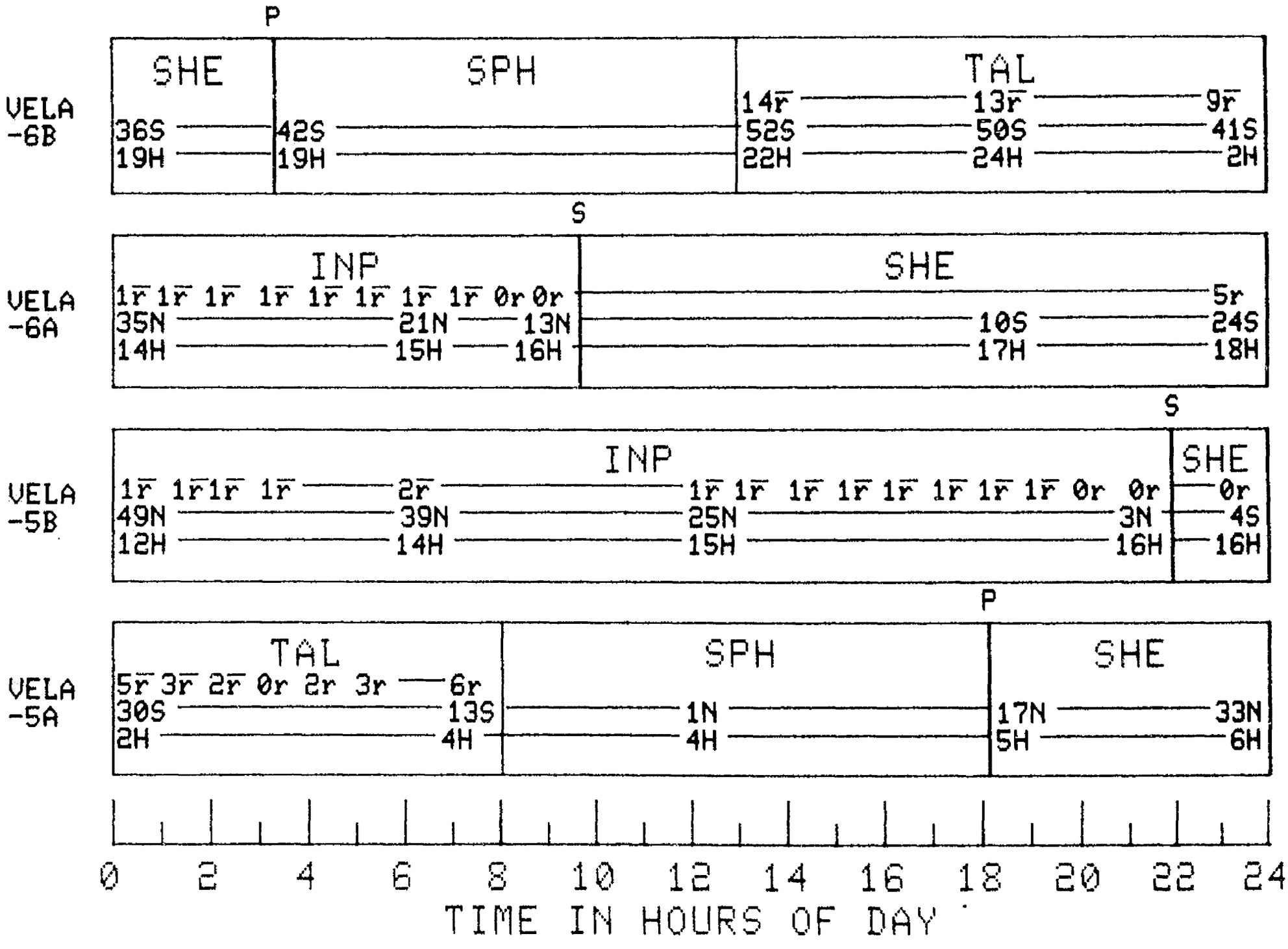
DAY 317 1977


INP
ISEE
-A-B
6r 6r 6r 4r 1r
25N 25N 25N 25N 25N
9H 9H 9H 10H 10H
P
SPH
SHE
PROG
NOZ-5
62N 43N 28N 83S 30N 59N 71N
19H 19H 19H 20H 7H 7H 7H
C P C C P
SPH
SHE
HAWK
EYE-1
79N 80N 85N 86S 3N 33N 45N 47N
13H 13H 12H 8H 15H 15H 15H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

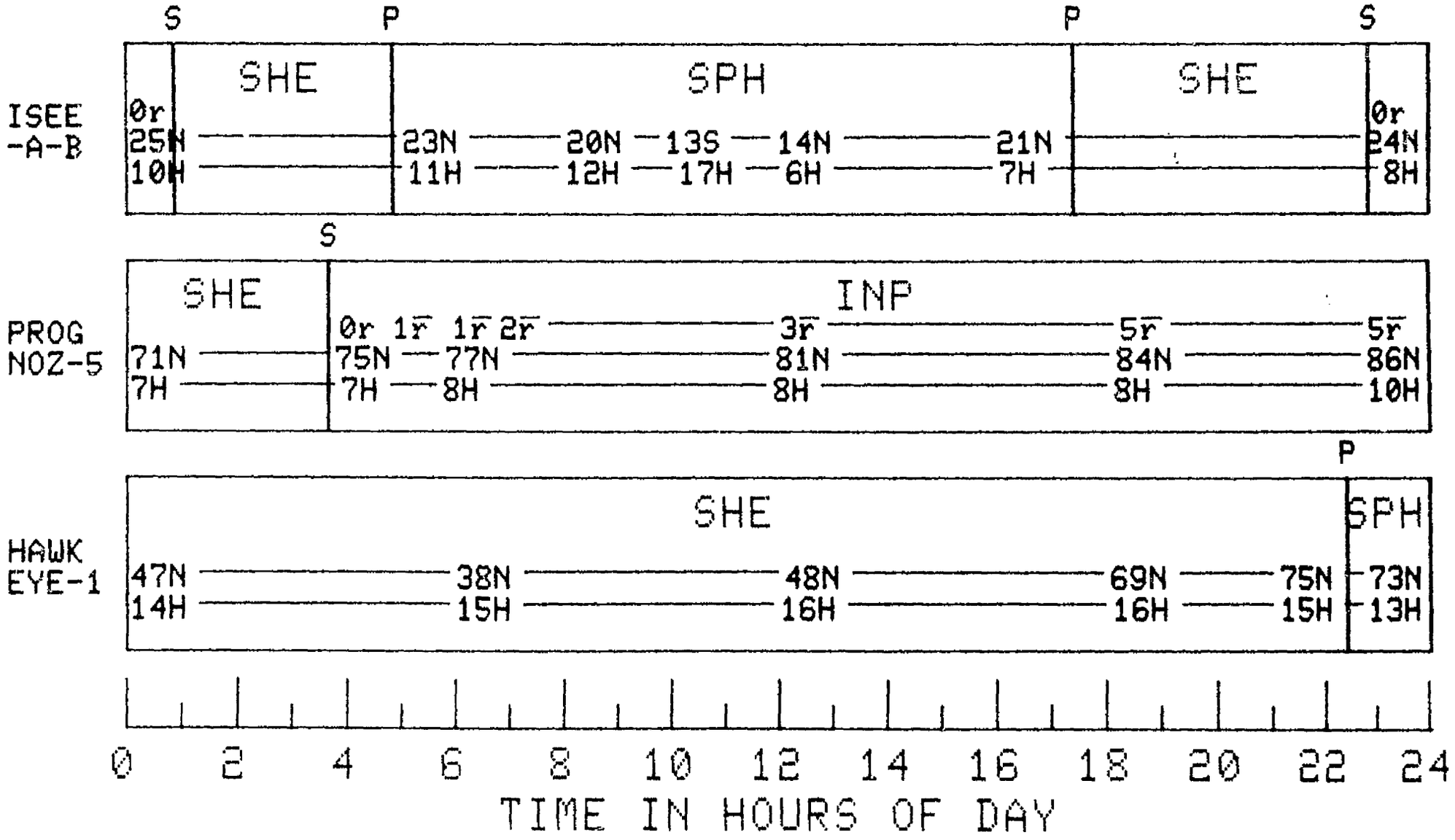
DAY 318 1977


IMP-J
INP
24r 24r 25r 25r 25r
36N 37N 37N 37N 37N
9H 9H 10H 10H 10H
IMP-H
TAL
3r 8r 10r 8r 10r
1S 2N 4N 7N 9N
0H 1H 1H 2H 2H
SOL RAD -11B
INP
1r 3r 4r 5r 5r
5N 4N 3N 1N 0N
7H 8H 10H 11H 12H
SOL RAD -11A
SPH
5S
20H
TAL
1r 1r 0r 1r 1r 2r 2r 2r 3r 3r 2r 2r 2r 1r 1r 0r 0r 1r 2r 2r 3r 4r
4S 2S 1S 1N
20H 22H 23H 0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

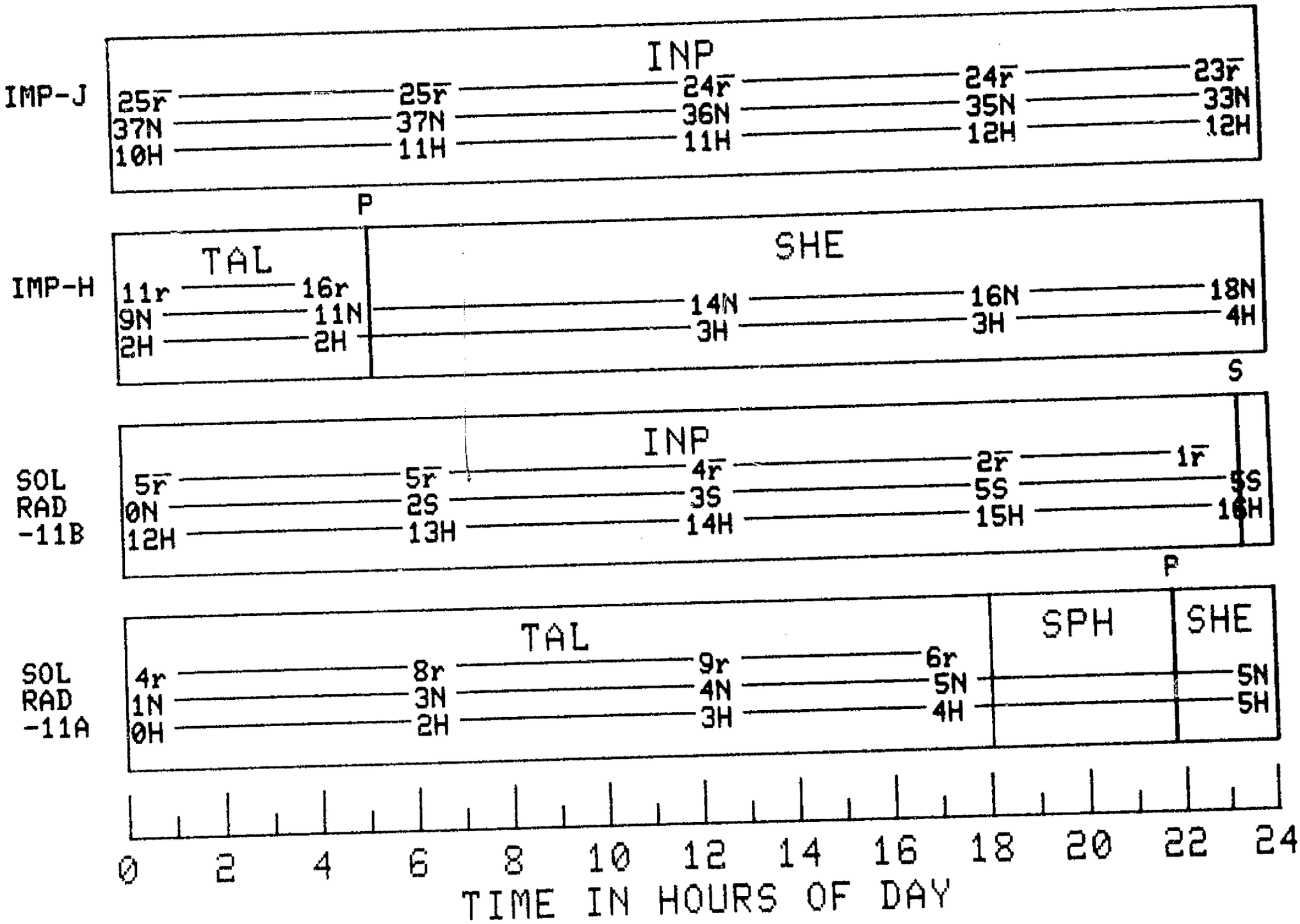
DAY 318 1977


VELA -6B
P
SHE
SPH
TAL
36S 19H
42S 19H
14r 52S 22H
13r 50S 24H
9r 41S 2H
VELA -6A
S
INP
SHE
1r 1r 1r 1r 1r 1r 1r 1r 0r 0r
35N 14H
21N 15H
13N 16H
5r
10S 17H
24S 18H
VELA -5B
S
INP
SHE
1r 1r1r 1r
2r
1r 1r 1r 1r 1r 1r 1r 1r 0r 0r
49N 12H
39N 14H
25N 15H
3N 16H
0r
4S 16H
VELA -5A
P
TAL
SPH
SHE
5r 3r 2r 0r 2r 3r
6r
30S 2H
13S 4H
1N 4H
17N 5H
33N 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

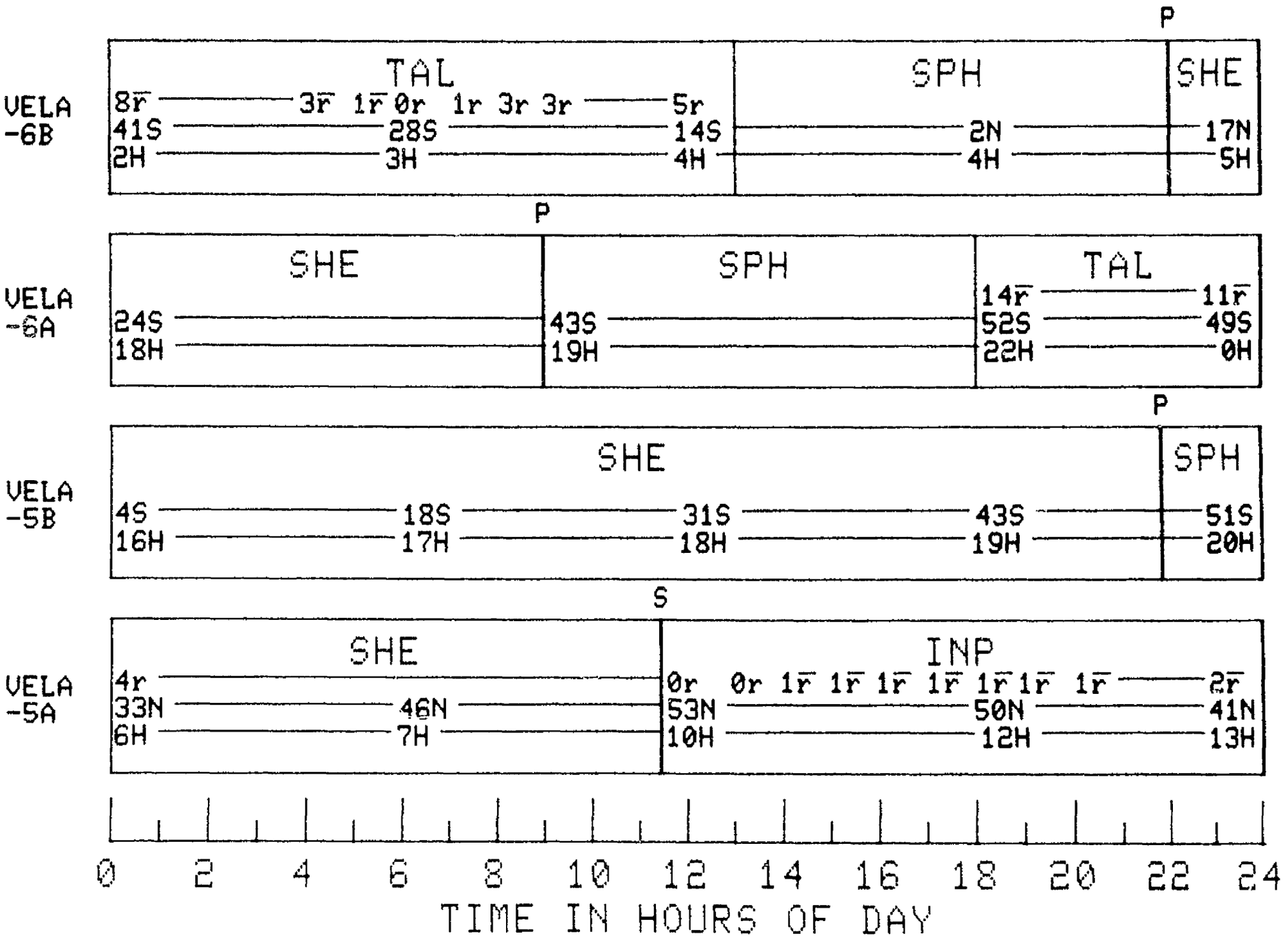
DAY 318 1977


S
P
P
S
SHE
SPH
SHE
ISEE
-A-B
0r
25N
10H
23N
11H
20N
12H
13S
17H
14N
6H
21N
7H
0r
24N
8H
S
SHE
INP
PROG
NOZ-5
71N
7H
0r 1r 1r 2r
75N
7H
77N
8H
3r
81N
8H
5r
84N
8H
5r
86N
10H
P
SHE
SPH
HAWK
EYE-1
47N
14H
38N
15H
48N
16H
69N
16H
75N
15H
73N
13H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

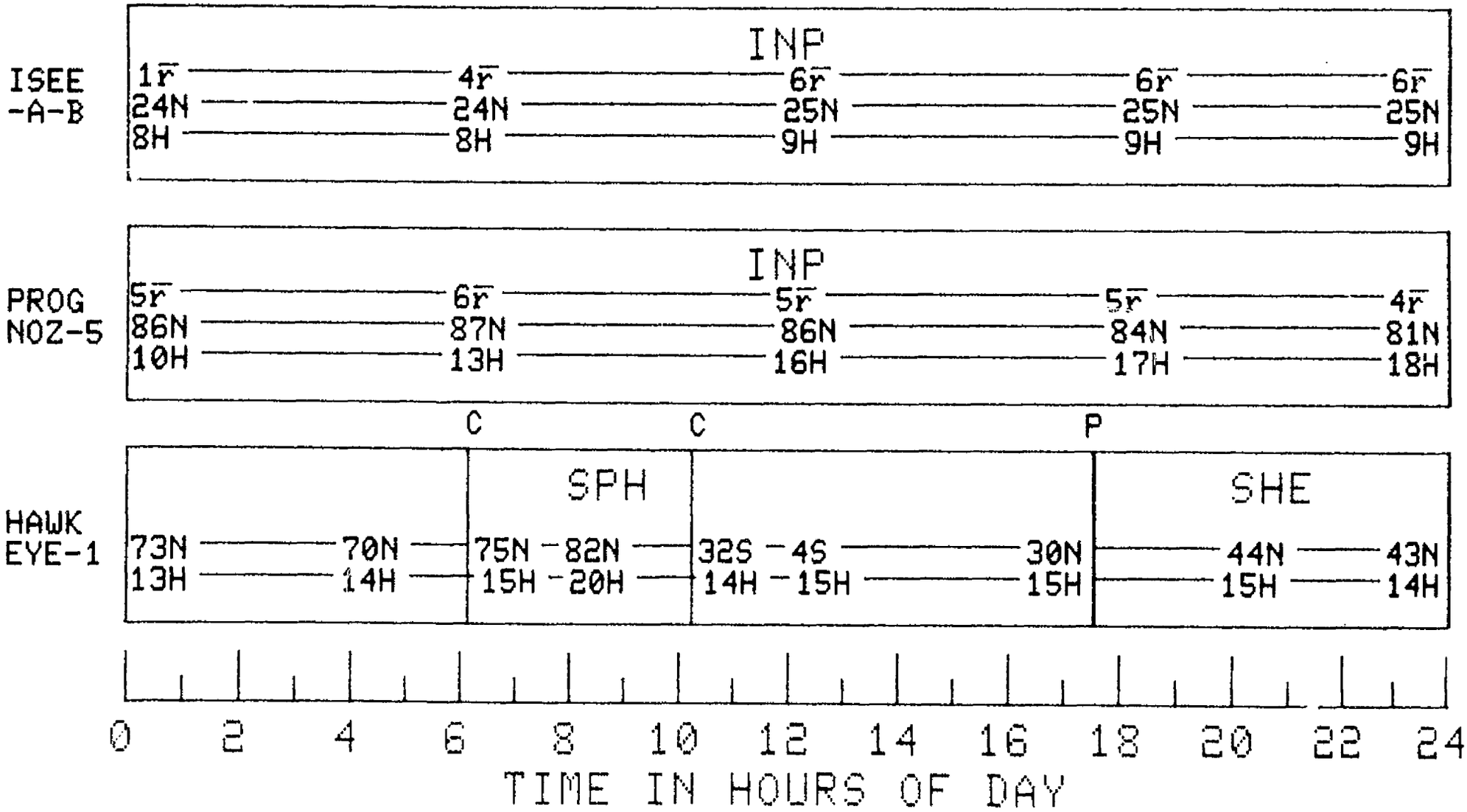
DAY 319 1977


IMP-J
INP
25r 25r 24r 24r 23r
37N 37N 36N 35N 33N
10H 11H 11H 12H 12H
P
IMP-H
TAL
SHE
11r 16r 14N 16N 18N
9N 11N 3H 3H 4H
2H 2H
S
SOL RAD -11B
INP
5r 5r 4r 2r 1r
0N 2S 3S 5S 5S
12H 13H 14H 15H 16H
P
SOL RAD -11A
TAL
SPH
SHE
4r 8r 9r 6r 5N 5N
1N 3N 4N 5N 5H
0H 2H 3H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

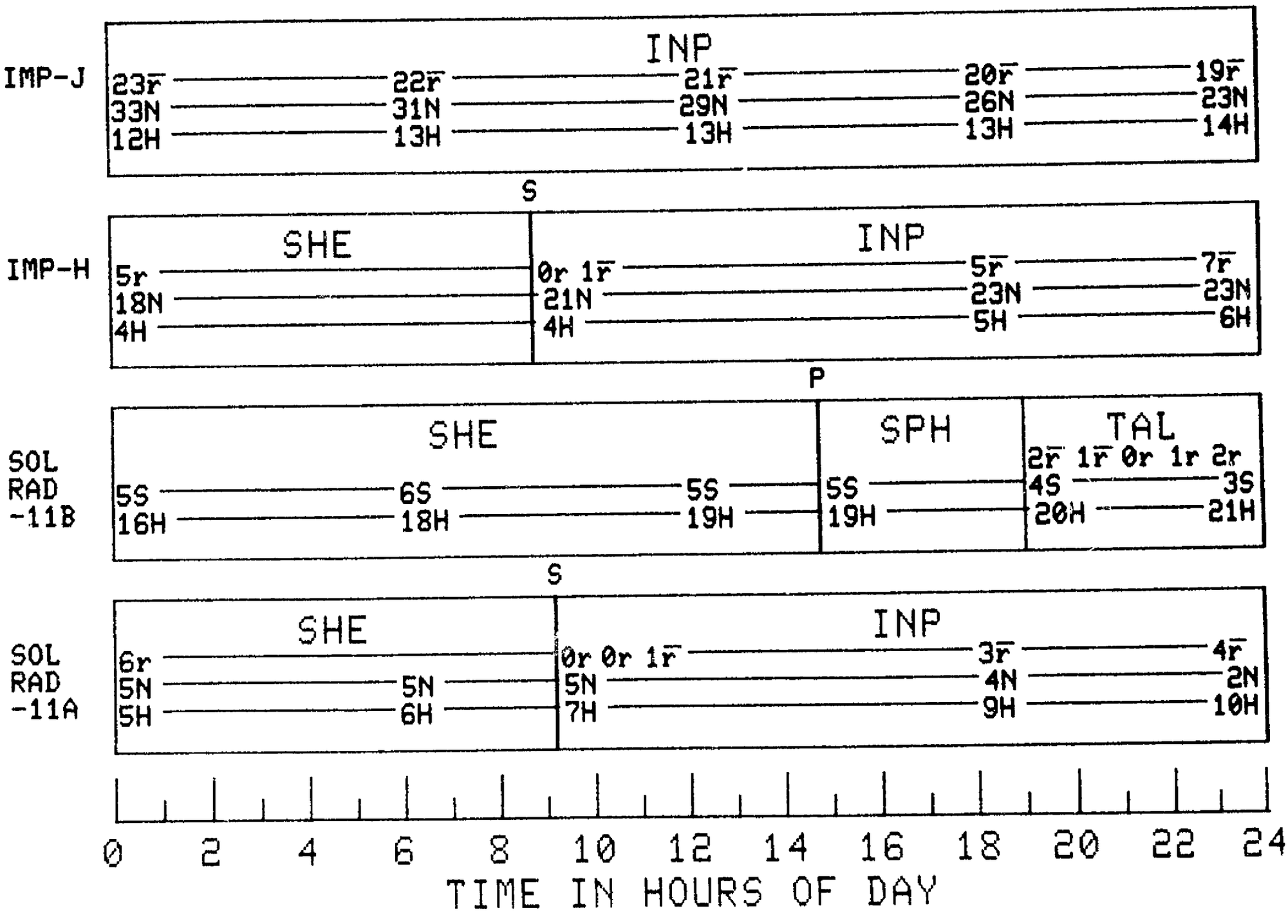
DAY 319 1977


VELA -6B
TAL
SPH
SHE
P
8r 3r 1r 0r 1r 3r 3r 5r
41S 28S 14S 2N 17N
2H 3H 4H 4H 5H
VELA -6A
SHE
SPH
TAL
P
24S 43S 14r 11r
18H 19H 52S 49S
22H 0H
VELA -5B
SHE
SPH
P
4S 18S 31S 43S 51S
16H 17H 18H 19H 20H
VELA -5A
SHE
INP
S
4r 0r 0r 1r 1r 1r 1r 1r 1r 1r 2r
33N 46N 53N 50N 41N
6H 7H 10H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

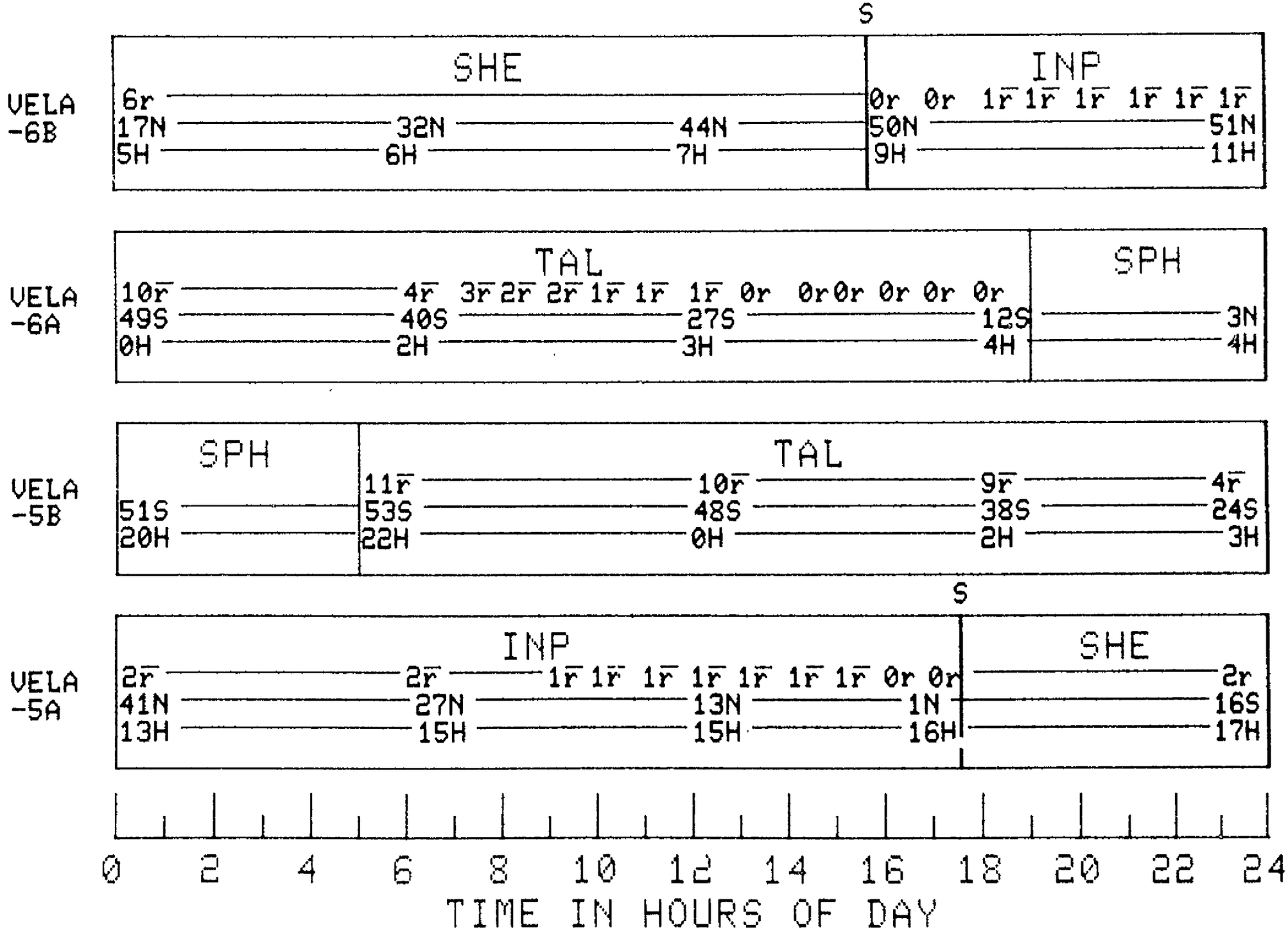
DAY 319 1977


ISEE
-A-B
INP
1r 4r 6r 6r 6r
24N 24N 25N 25N 25N
8H 8H 9H 9H 9H
PROG
NOZ-5
INP
5r 6r 5r 5r 4r
86N 87N 86N 84N 81N
10H 13H 16H 17H 18H
C C P
HAWK
EYE-1
SPH
SHE
73N 70N 75N 82N 32S 4S 30N 44N 43N
13H 14H 15H 20H 14H 15H 15H 15H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

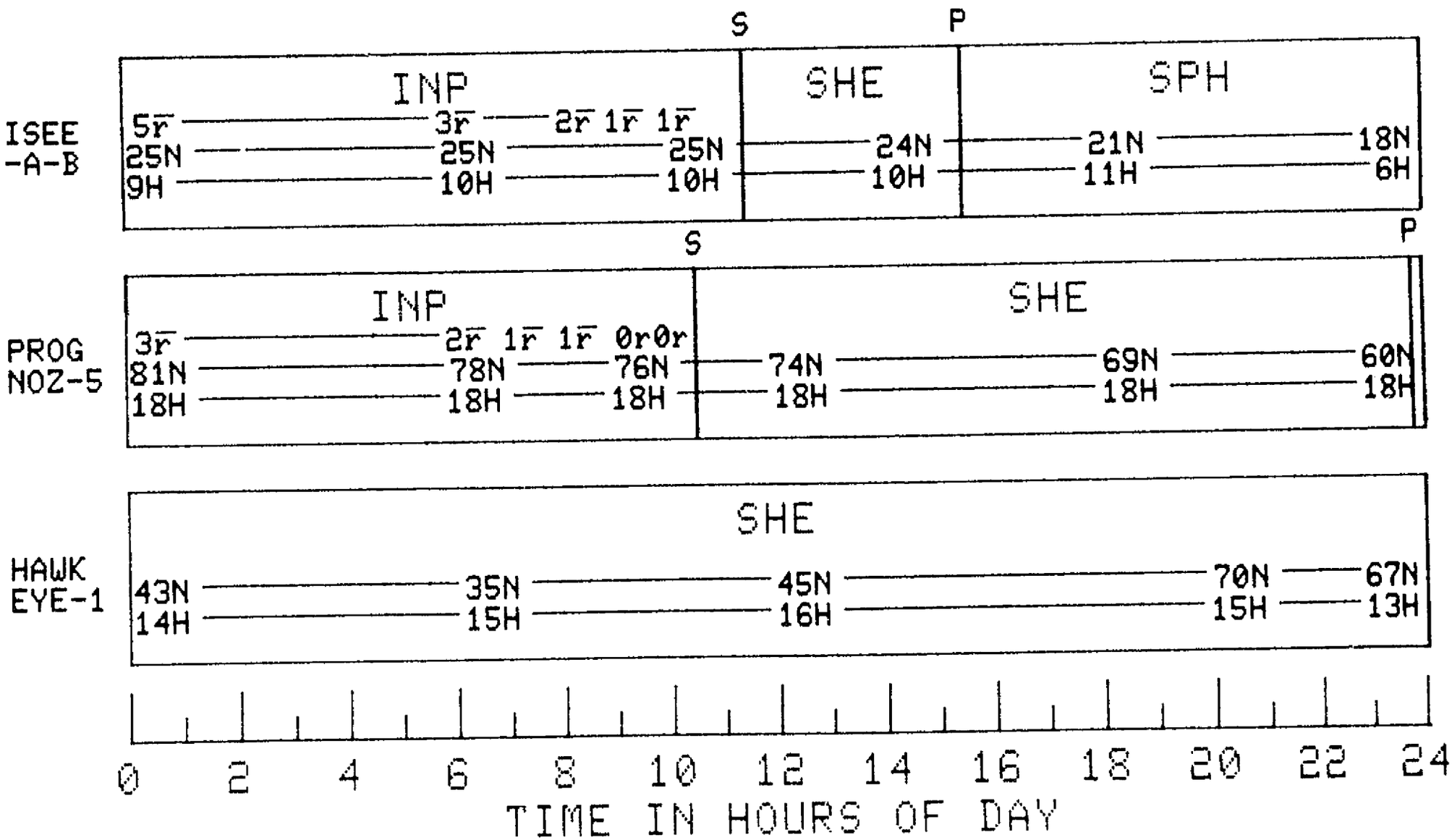
DAY 320 1977


IMP-J
INP
23r 22r 21r 20r 19r
33N 31N 29N 26N 23N
12H 13H 13H 13H 14H
S
IMP-H
SHE
5r
18N
4H
INP
0r 1r 5r 7r
21N 23N 23N
4H 5H 6H
P
SOL RAD -11B
SHE
5S 6S 5S
16H 18H 19H
SPH
5S
19H
TAL
2r 1r 0r 1r 2r
4S 3S
20H 21H
S
SOL RAD -11A
SHE
6r
5N 5N
5H 6H
INP
0r 0r 1r 3r 4r
5N 4N 2N
7H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

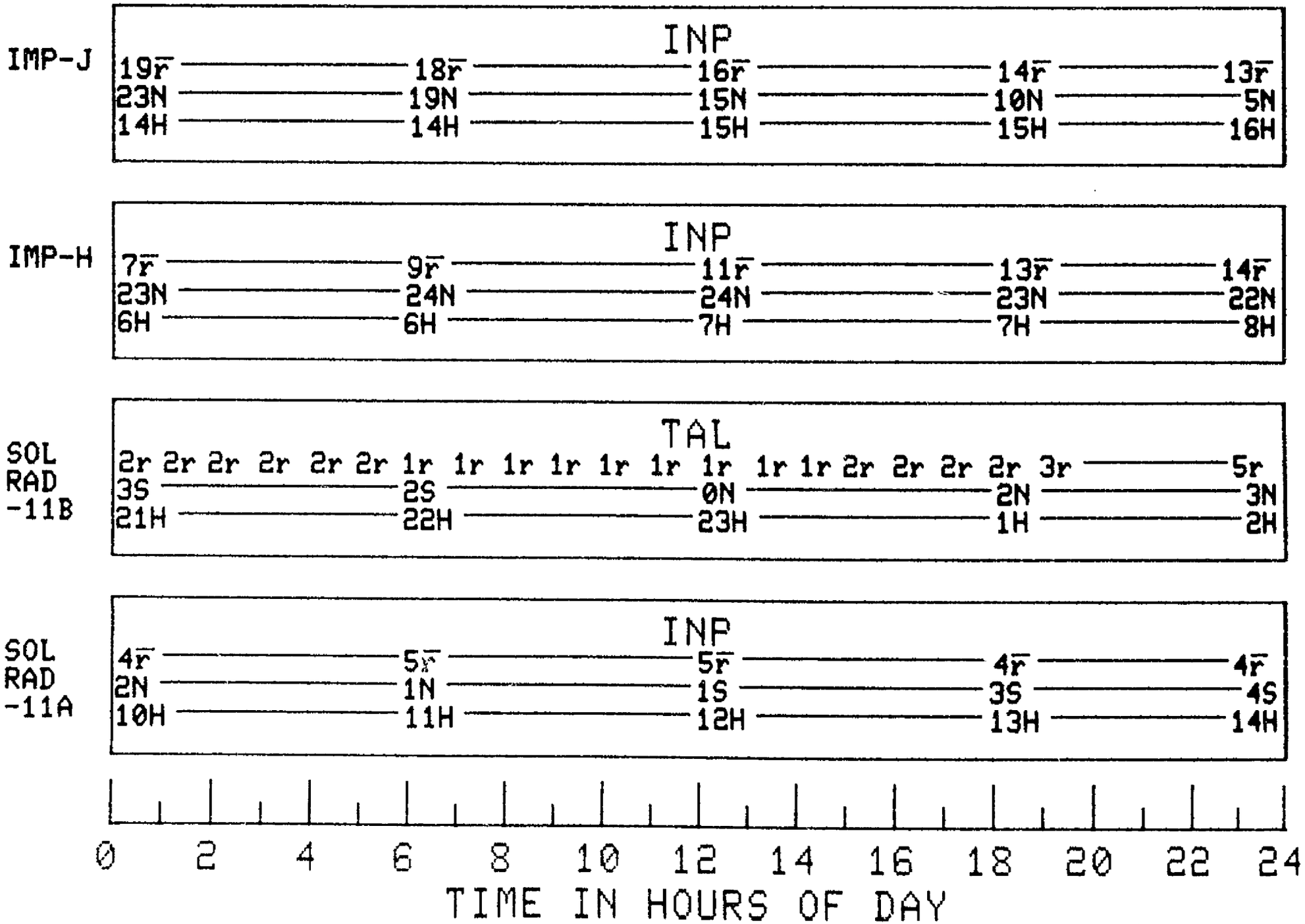
DAY 320 1977


S
SHE
INP
VELA -6B
6r
17N 32N 44N
5H 6H 7H
0r 0r 1r 1r 1r 1r 1r 1r
50N 51N
9H 11H
TAL
SPH
VELA -6A
10r 4r 3r 2r 2r 1r 1r 1r 0r 0r 0r 0r 0r 0r
49S 40S 27S 12S 3N
0H 2H 3H 4H 4H
SPH
TAL
VELA -5B
51S 11r 10r 9r 4r
20H 53S 48S 38S 24S
22H 0H 2H 3H
S
INP
SHE
VELA -5A
2r 2r 1r 1r 1r 1r 1r 1r 1r 0r 0r 2r
41N 27N 13N 1N 16S
13H 15H 15H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

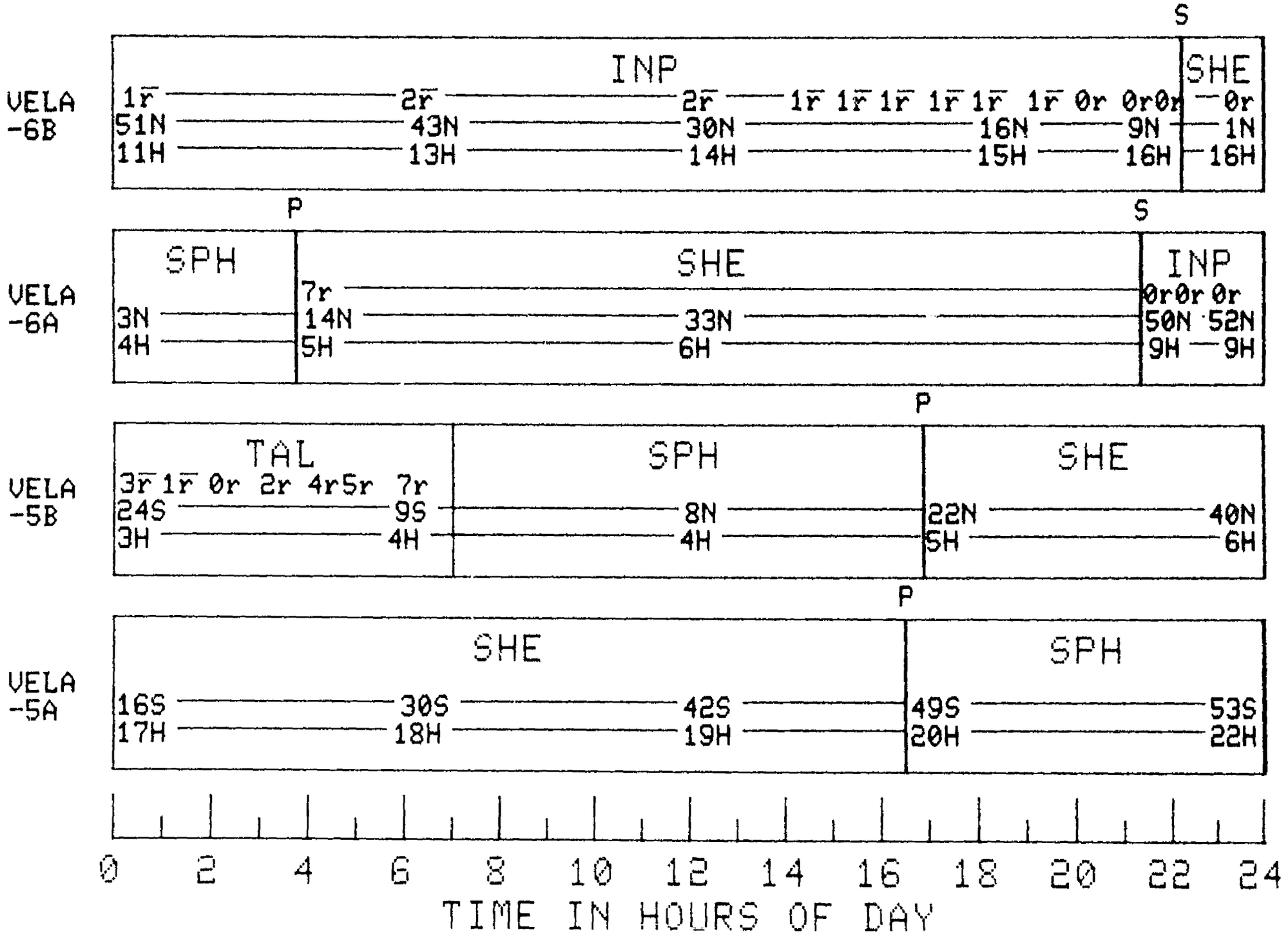
DAY 320 1977


S
P
INP
SHE
SPH
ISEE
-A-B
5r
3r
2r 1r 1r
25N
25N
25N
9H
10H
10H
24N
10H
21N
11H
18N
6H
S
P
INP
SHE
PROG
NOZ-5
3r
2r 1r 1r 0r0r
81N
78N
76N
18H
18H
18H
74N
18H
69N
18H
60N
18H
SHE
HAWK
EYE-1
43N
35N
45N
70N
67N
14H
15H
16H
15H
13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

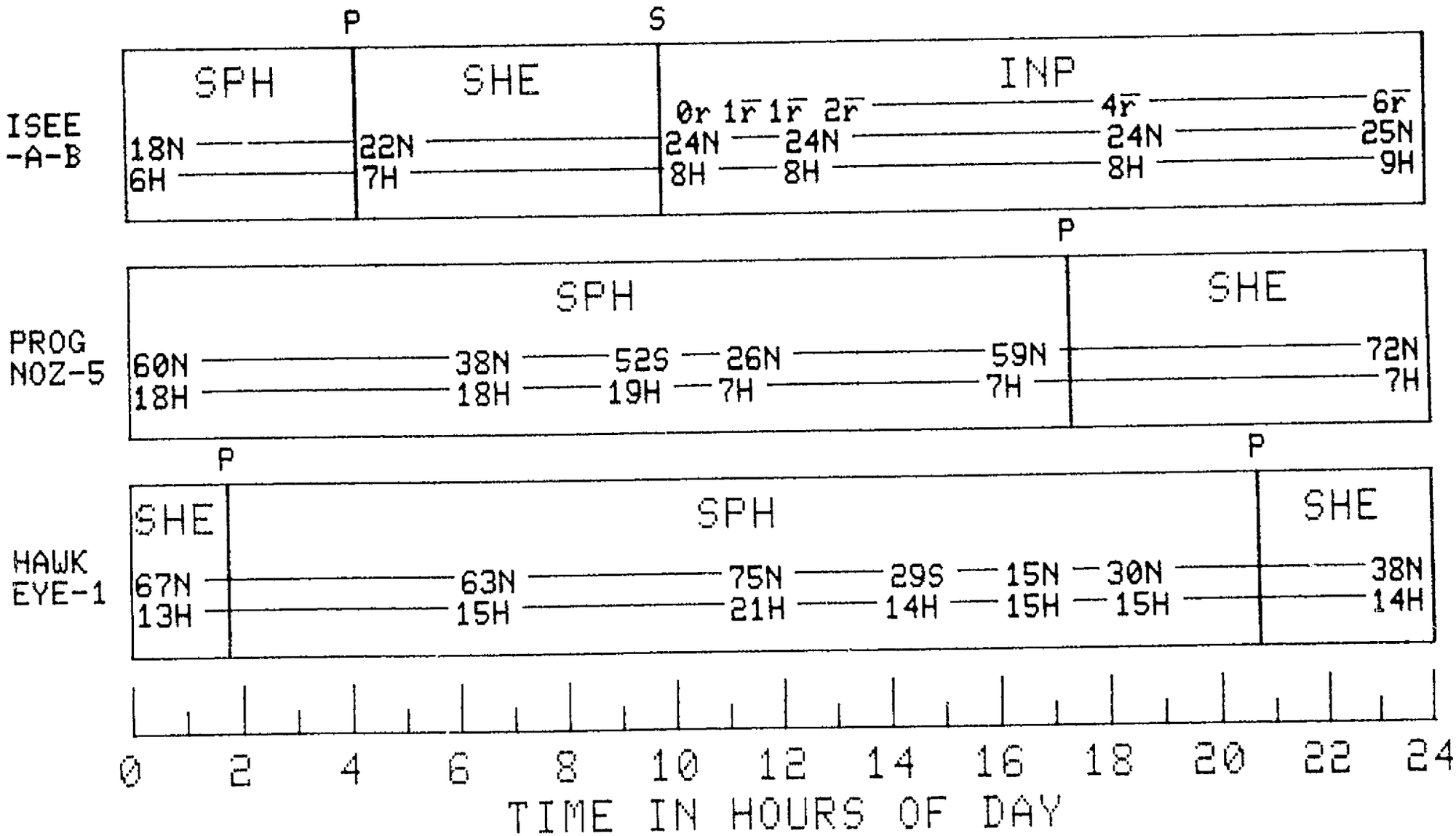
DAY 321 1977


IMP-J
INP
19r̄ 18r̄ 16r̄ 14r̄ 13r̄
23N 19N 15N 10N 5N
14H 14H 15H 15H 16H
IMP-H
INP
7r̄ 9r̄ 11r̄ 13r̄ 14r̄
23N 24N 24N 23N 22N
6H 6H 7H 7H 8H
SOL RAD -11B
TAL
2r 2r 2r 2r 2r 2r 1r 1r 1r 1r 1r 1r 1r 1r 1r 2r 2r 2r 2r 3r 5r
3S 2S 0N 2N 3N
21H 22H 23H 1H 2H
SOL RAD -11A
INP
4r̄ 5r̄ 5r̄ 4r̄ 4r̄
2N 1N 1S 3S 4S
10H 11H 12H 13H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

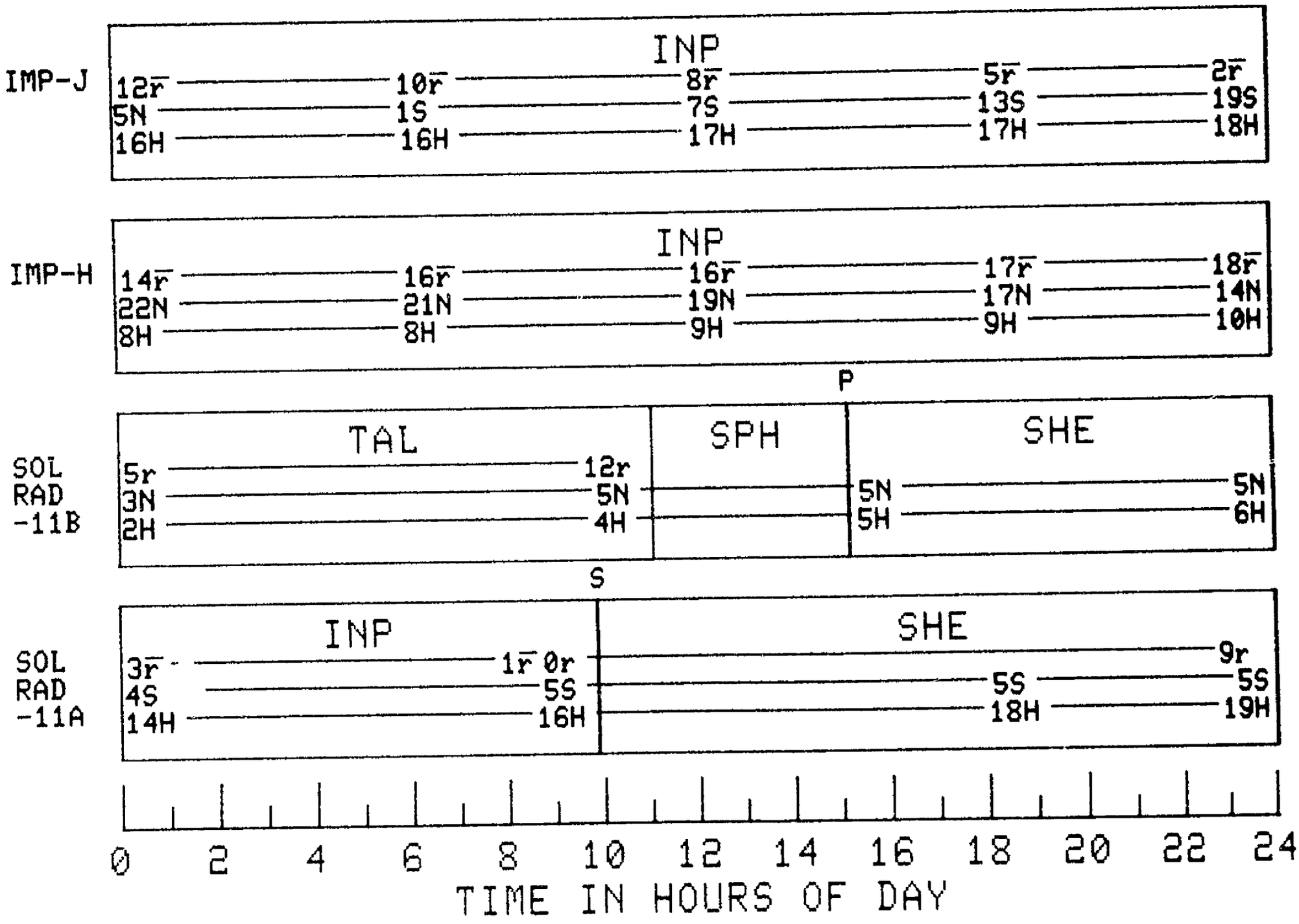
DAY 321 1977

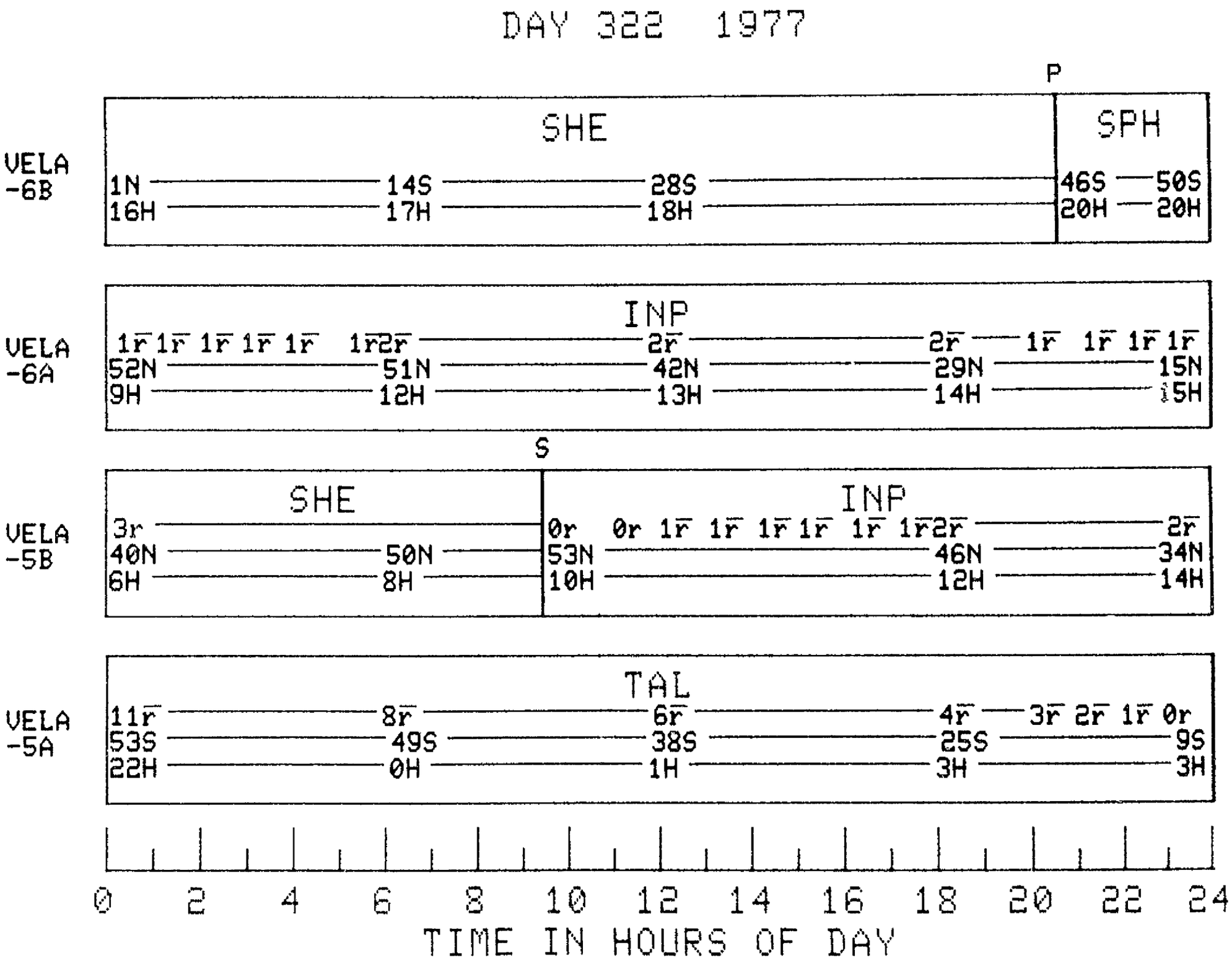

S
INP
SHE
VELA -6B
1r 2r 2r 1r 1r 1r 1r 1r 1r 0r 0r0r 0r
51N 43N 30N 16N 9N 1N
11H 13H 14H 15H 16H 16H
P
S
SPH
SHE
INP
VELA -6A
7r
0r0r 0r
3N 14N 33N 50N 52N
4H 5H 6H 9H 9H
P
TAL
SPH
SHE
VELA -5B
3r 1r 0r 2r 4r5r 7r
24S 9S 8N 22N 40N
3H 4H 4H 5H 6H
P
SHE
SPH
VELA -5A
16S 30S 42S 49S 53S
17H 18H 19H 20H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 321 1977

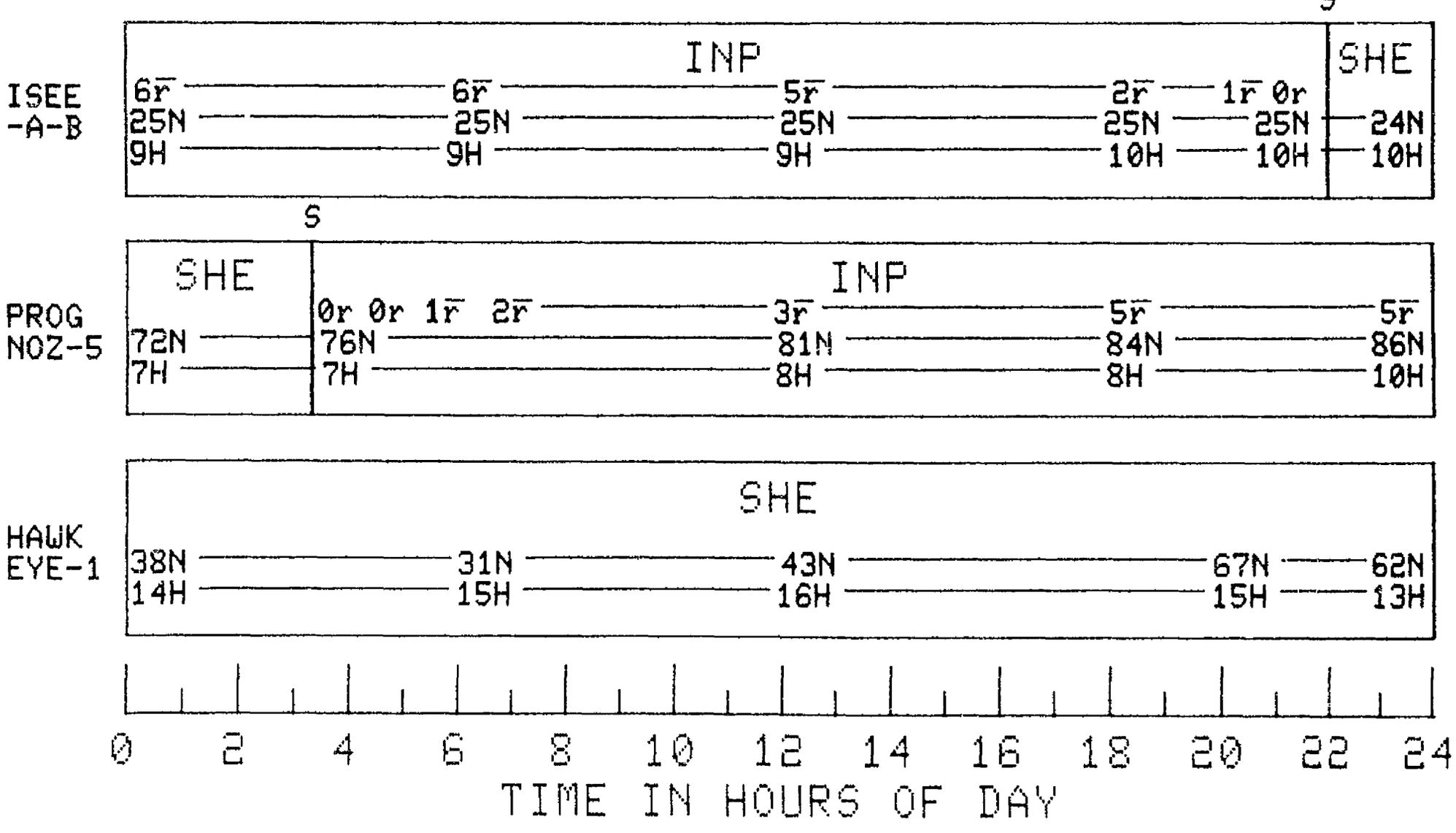

P
S
SPH
SHE
INP
ISEE
-A-B
18N
6H
22N
7H
0r 1r̄ 1r 2r̄
24N
8H
24N
8H
4r̄
24N
8H
6r̄
25N
9H
P
SPH
SHE
PROG
NOZ-5
60N
18H
38N
18H
52S
19H
26N
7H
59N
7H
72N
7H
P
P
SHE
SPH
SHE
HAWK
EYE-1
67N
13H
63N
15H
75N
21H
29S
14H
15N
15H
30N
15H
38N
14H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 322 1977

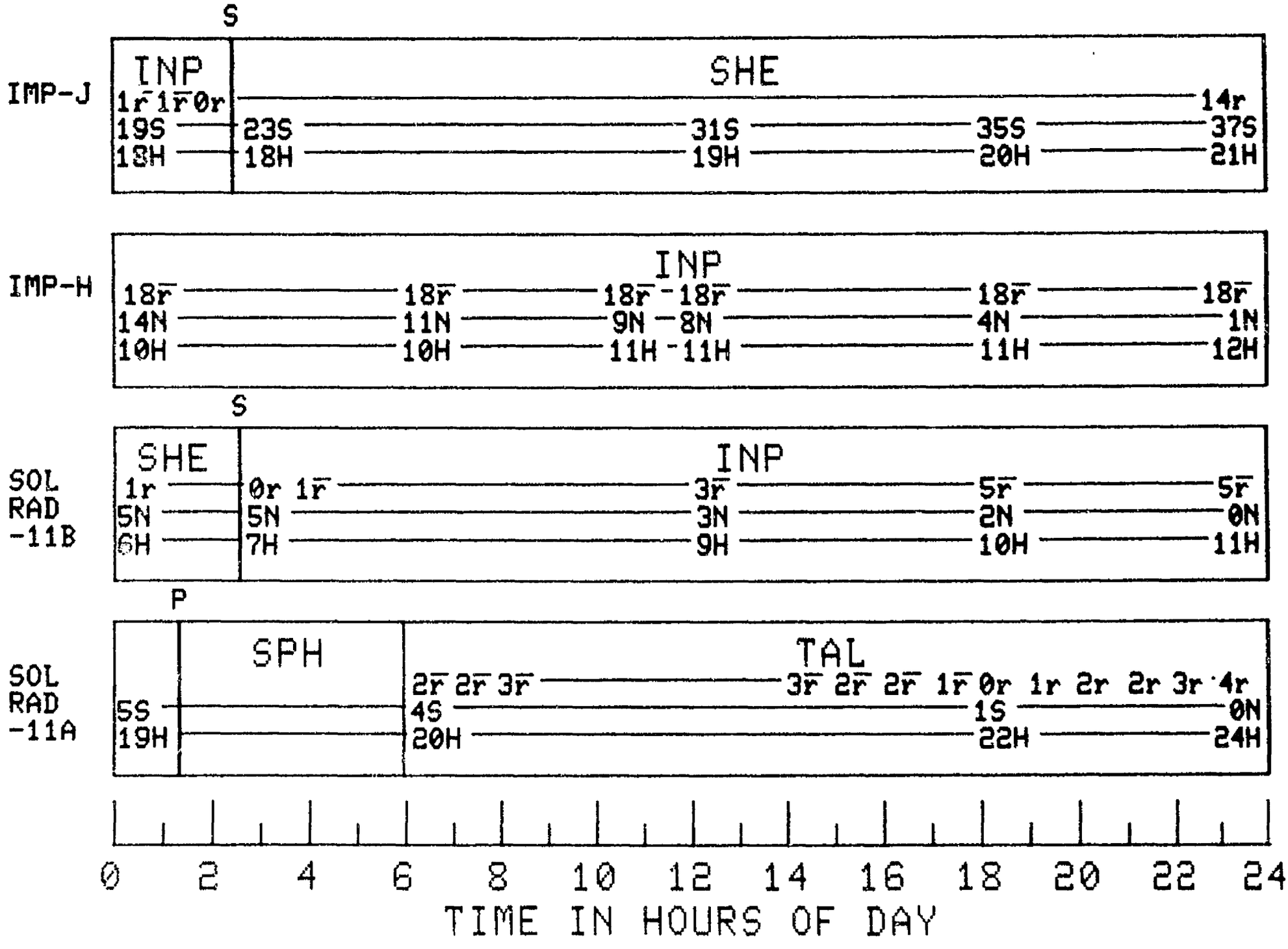

IMP-J
INP
12r̄ 10r̄ 8r̄ 5r̄ 2r̄
5N 1S 7S 13S 19S
16H 16H 17H 17H 18H
IMP-H
INP
14r̄ 16r̄ 16r̄ 17r̄ 18r̄
22N 21N 19N 17N 14N
8H 8H 9H 9H 10H
P
SOL RAD -11B
TAL
SPH
SHE
5r 12r
3N 5N
2H 4H
5N 5N
5H 6H
S
SOL RAD -11A
INP
SHE
3r̄ 1r̄ 0r 9r
4S 5S 5S 5S
14H 16H 18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 322 1977
P
VELA -6B
SHE
SPH
1N 14S 28S 46S 50S
16H 17H 18H 20H 20H
VELA -6A
INP
1r 1r 1r 1r 1r 1r2r 2r 2r 1r 1r 1r 1r
52N 51N 42N 29N 15N
9H 12H 13H 14H 15H
S
VELA -5B
SHE
INP
3r
40N 50N
6H 8H
0r 0r 1r 1r 1r 1r 1r 1r2r 2r
53N 46N 34N
10H 12H 14H
VELA -5A
TAL
11r 8r 6r 4r 3r 2r 1r 0r
53S 49S 38S 25S 9S
22H 0H 1H 3H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

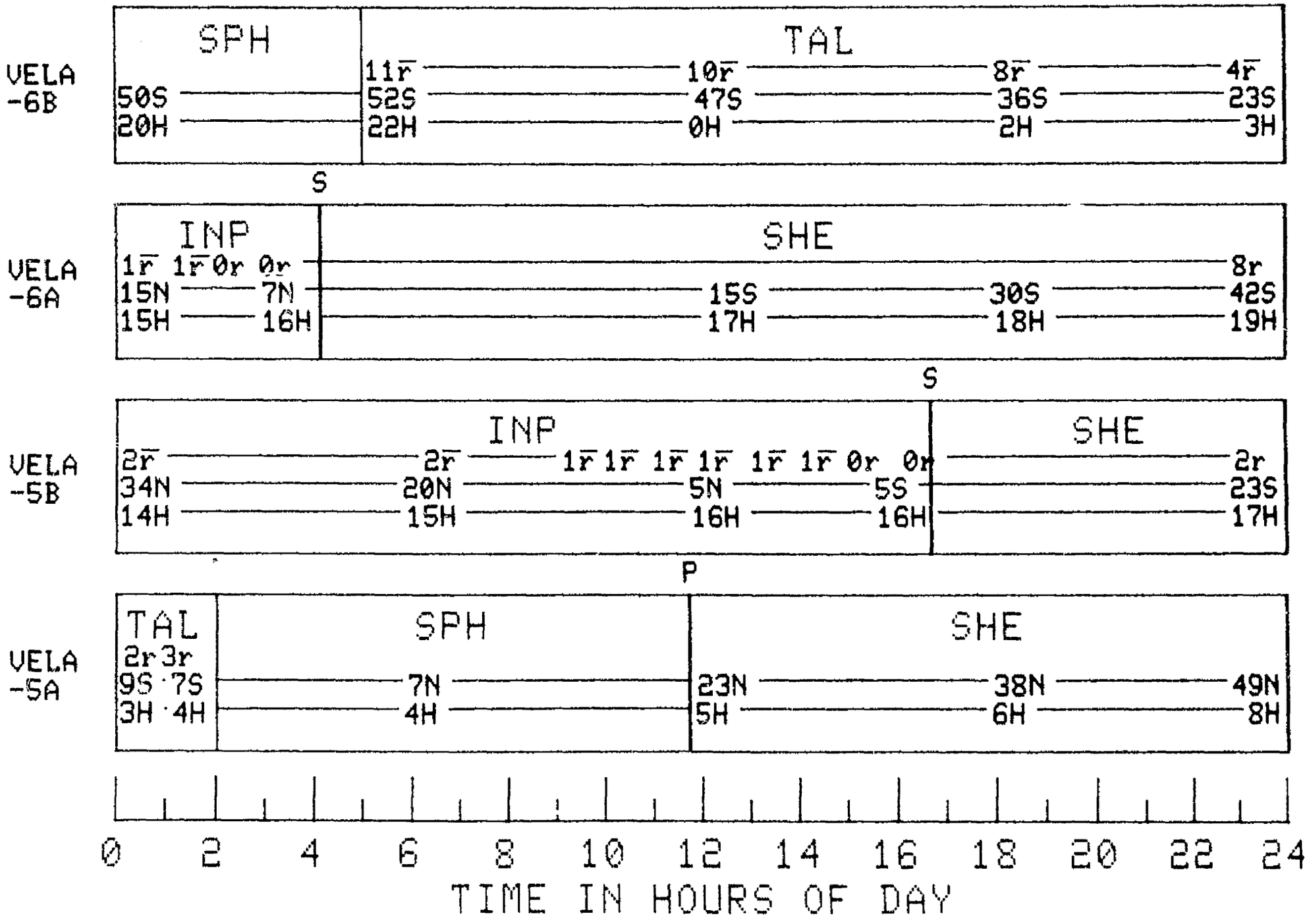
DAY 322 1977


S
INP
SHE
ISEE
-A-B
6r̄ 6r̄ 5r̄ 2r̄ 1r̄ 0r
25N 25N 25N 25N 25N 24N
9H 9H 9H 10H 10H 10H
S
SHE
INP
PROG
NOZ-5
0r 0r 1r̄ 2r̄ 3r̄ 5r̄ 5r̄
72N 76N 81N 84N 86N
7H 7H 8H 8H 10H
SHE
HAWK
EYE-1
38N 31N 43N 67N 62N
14H 15H 16H 15H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

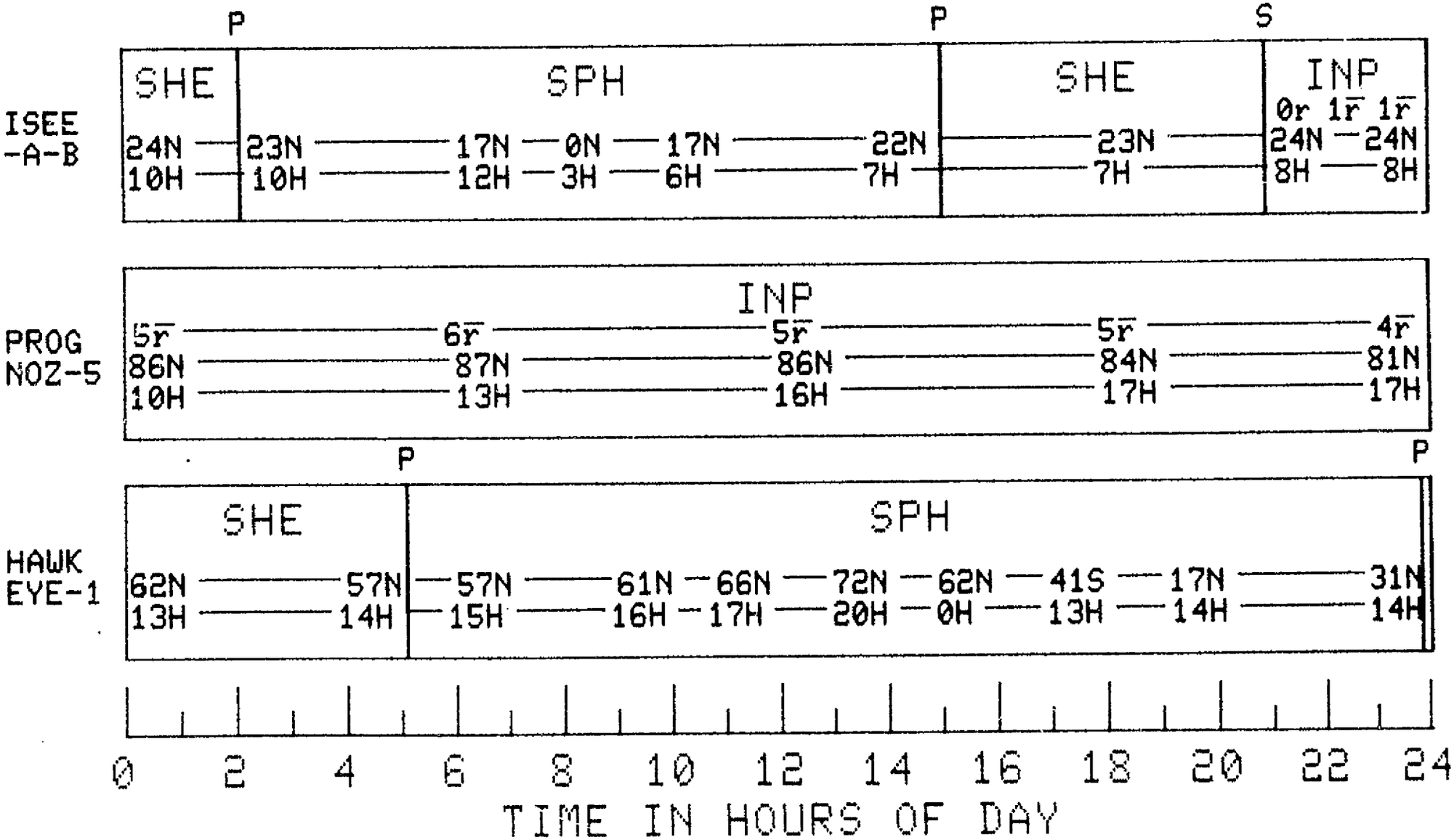
DAY 323 1977


S
INP
SHE
IMP-J
1r 1r 0r
14r
19S
23S
31S
35S
37S
18H
18H
19H
20H
21H
IMP-H
INP
18r
18r
18r 18r
18r
18r
14N
11N
9N 8N
4N
1N
10H
10H
11H 11H
11H
12H
S
SHE
INP
SOL RAD -11B
1r
0r 1r
3r
5r
5r
5N
5N
3N
2N
0N
6H
7H
9H
10H
11H
P
SPH
TAL
SOL RAD -11A
2r 2r 3r
3r 2r 2r 1r 0r 1r 2r 2r 3r 4r
5S
4S
1S
0N
19H
20H
22H
24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

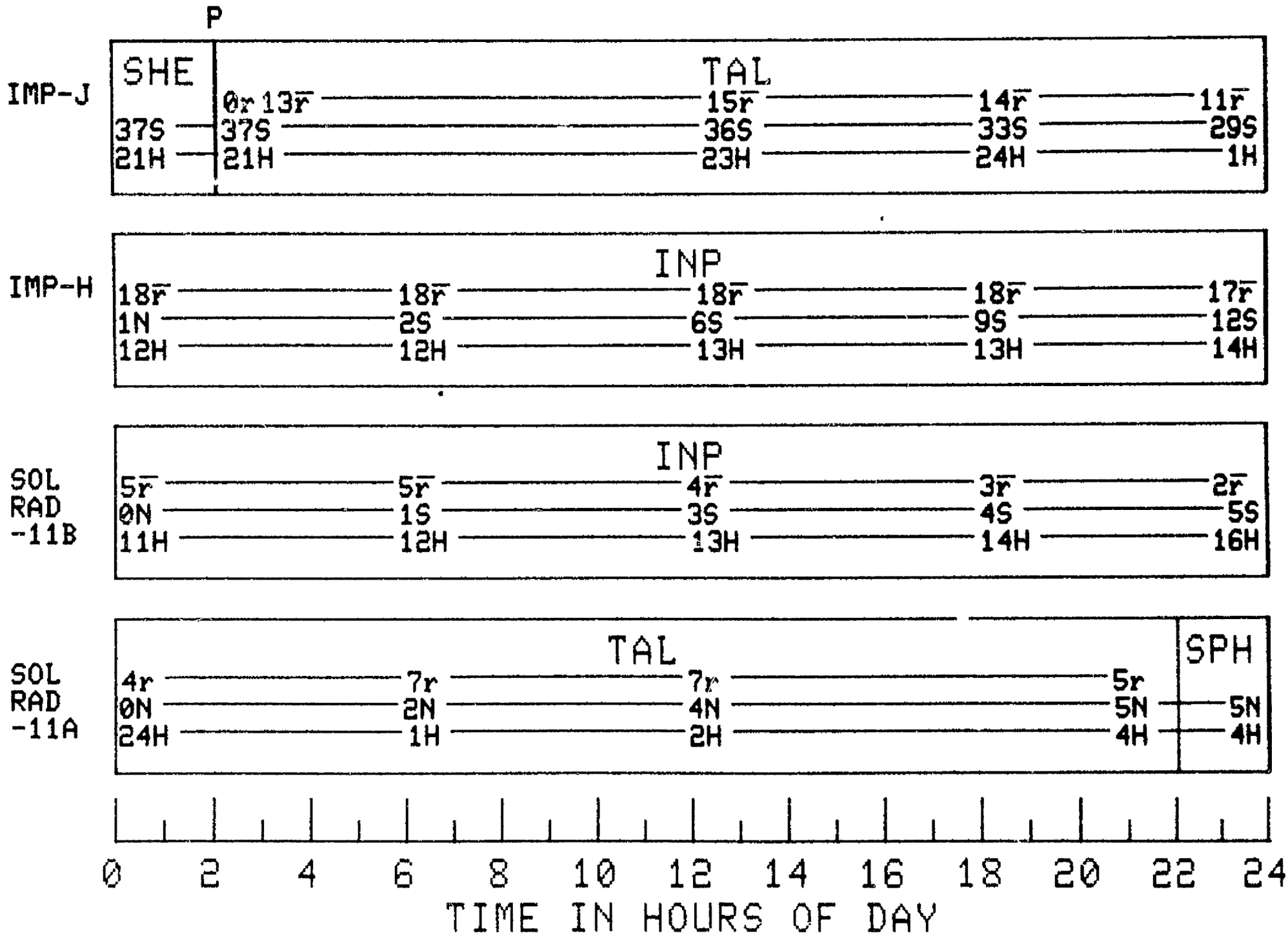
DAY 323 1977


VELA -6B
SPH
50S
20H
TAL
11r 10r 8r 4r
52S 47S 36S 23S
22H 0H 2H 3H
S
VELA -6A
INP
1r 1r 0r 0r
15N 7N
15H 16H
SHE
8r
15S 30S 42S
17H 18H 19H
S
VELA -5B
INP
2r 2r 1r 1r 1r 1r 1r 1r 0r 0r
34N 20N 5N 5S
14H 15H 16H 16H
SHE
2r
23S
17H
P
VELA -5A
TAL
2r 3r
9S 7S
3H 4H
SPH
7N
4H
SHE
23N 38N 49N
5H 6H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

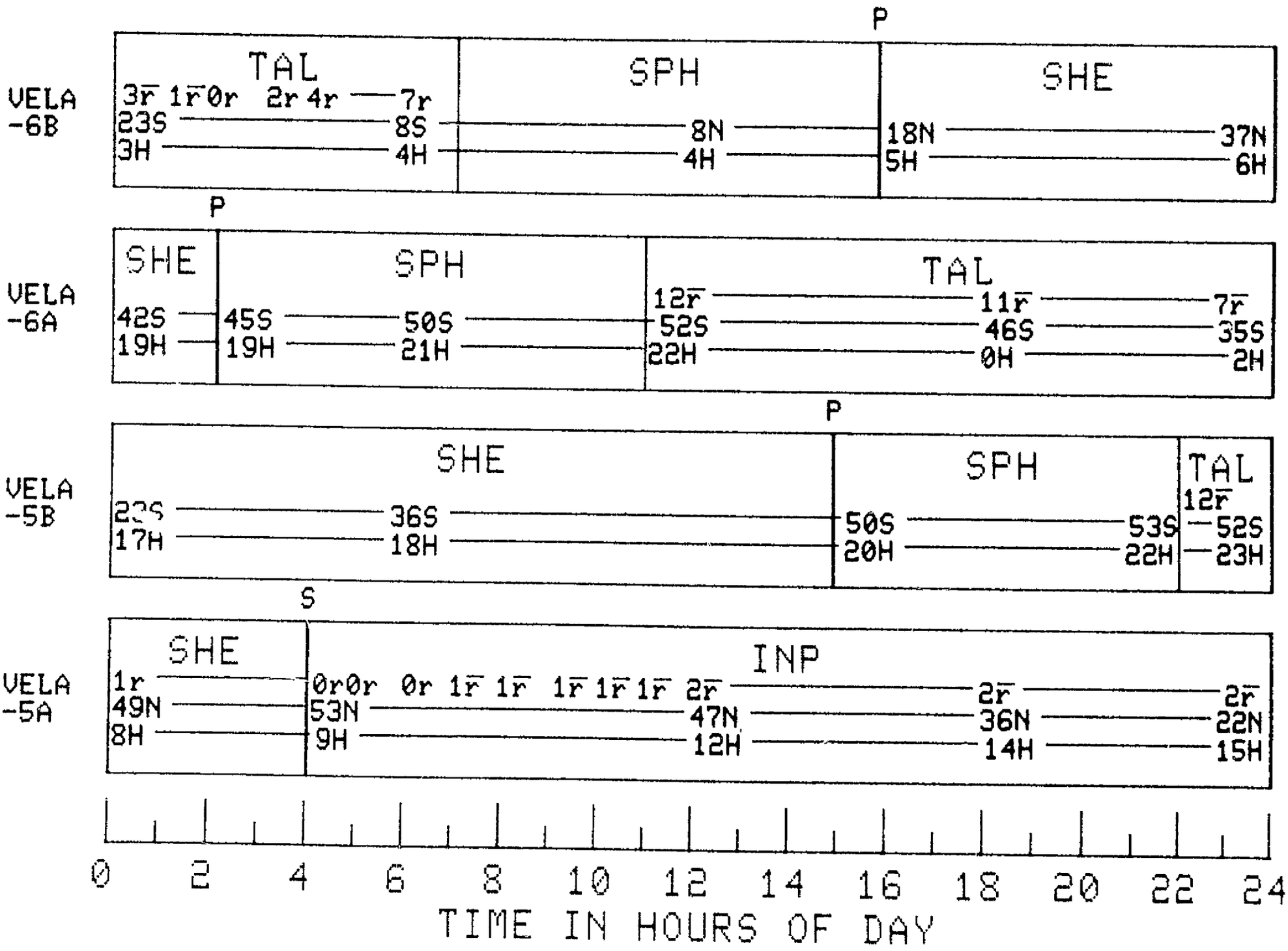
DAY 323 1977


P
P
S
SHE
SPH
SHE
INP
0r 1r̄ 1r̄
ISEE
-A-B
24N 23N 17N 0N 17N 22N 23N 24N 24N
10H 10H 12H 3H 6H 7H 7H 8H 8H
INP
PROG
NOZ-5
5r̄ 6r̄ 5r̄ 5r̄ 4r̄
86N 87N 86N 84N 81N
10H 13H 16H 17H 17H
P
P
SHE
SPH
HAWK
EYE-1
62N 57N 57N 61N 66N 72N 62N 41S 17N 31N
13H 14H 15H 16H 17H 20H 0H 13H 14H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

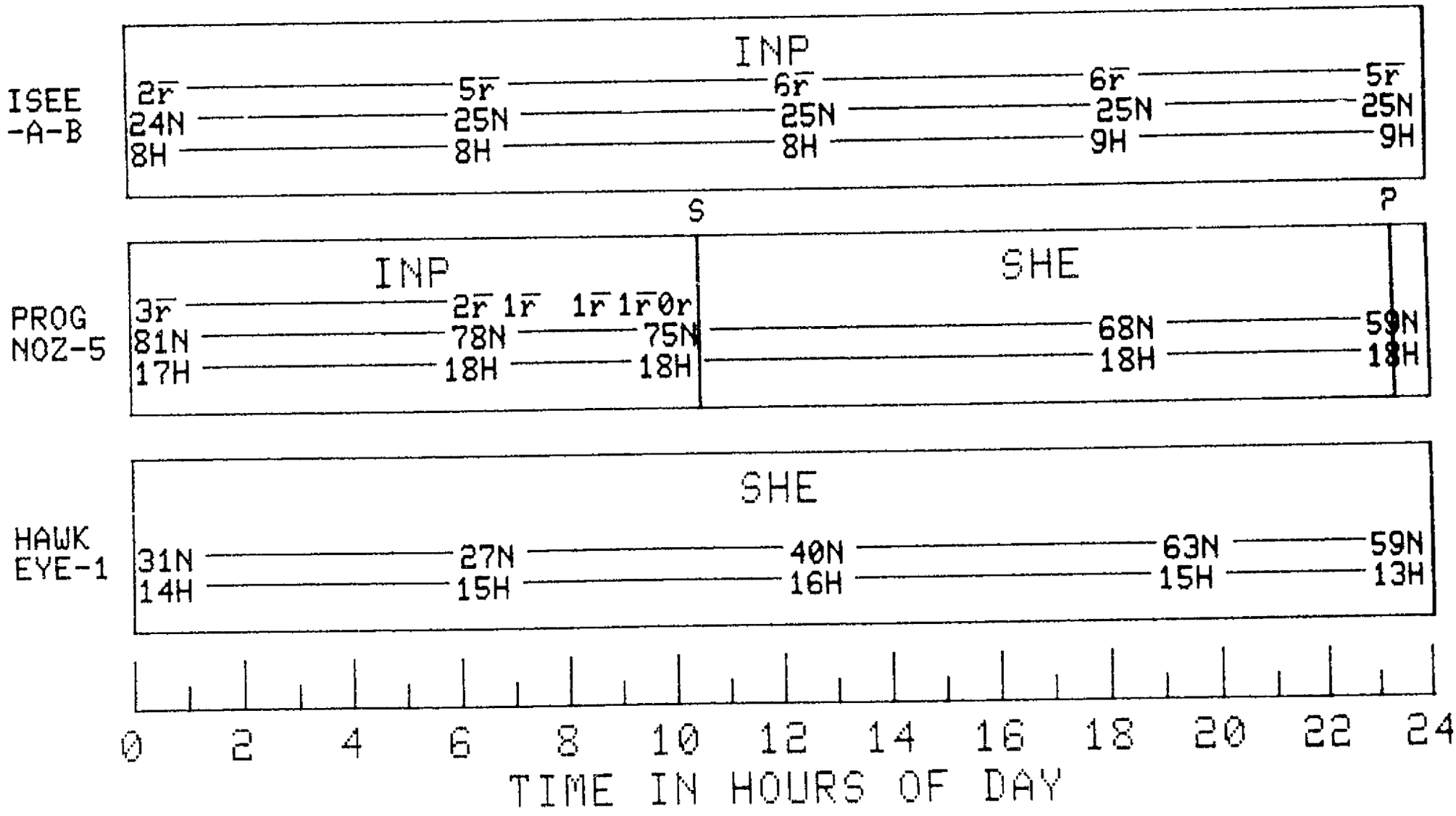
DAY 324 1977

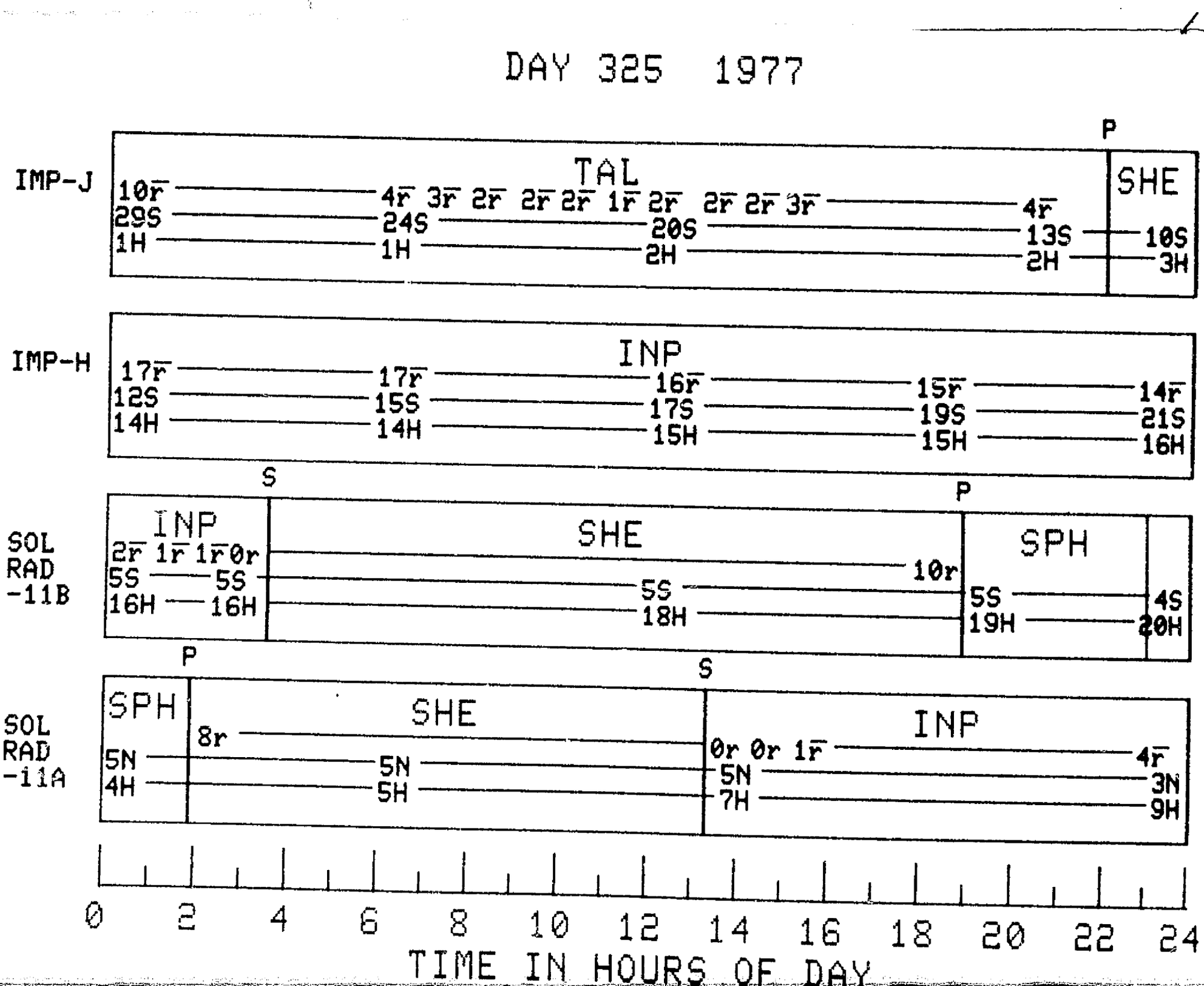

P
IMP-J
SHE
TAL
0r 13r
15r
14r
11r
37S
37S
36S
33S
29S
21H
21H
23H
24H
1H
IMP-H
INP
18r
18r
18r
18r
17r
1N
2S
6S
9S
12S
12H
12H
13H
13H
14H
SOL RAD -11B
INP
5r
5r
4r
3r
2r
0N
1S
3S
4S
5S
11H
12H
13H
14H
16H
SOL RAD -11A
TAL
SPH
4r
7r
7r
5r
0N
2N
4N
5N
5N
24H
1H
2H
4H
4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 324 1977

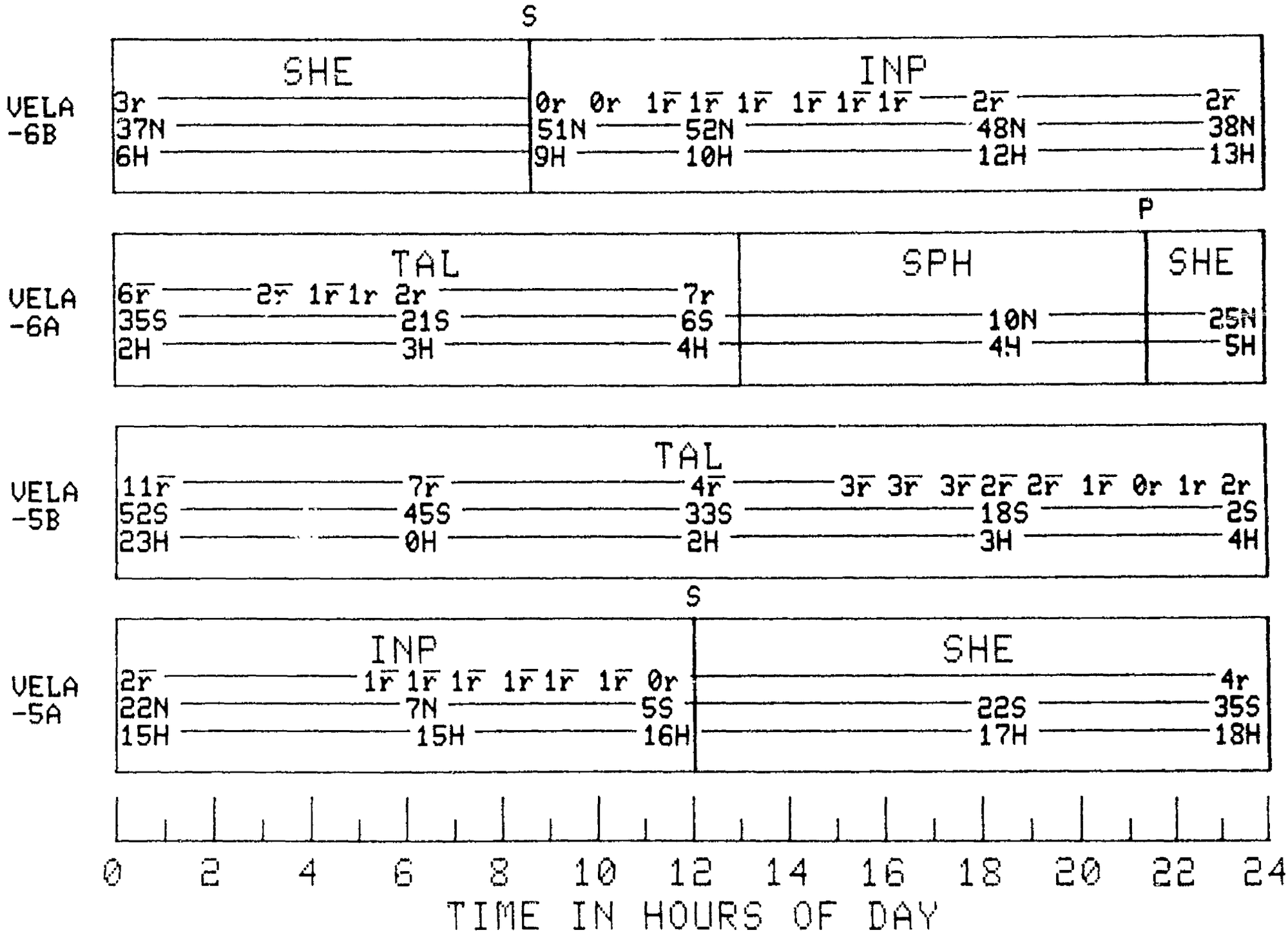

P
TAL
SPH
SHE
VELA -6B
3r̄ 1r̄ 0r 2r 4r 7r
23S 8S 8N
3H 4H 4H
18N 37N
5H 6H
P
SHE
SPH
TAL
VELA -6A
42S 45S 50S
19H 19H 21H
12r̄ 11r̄ 7r̄
52S 46S 35S
22H 0H 2H
P
SHE
SPH
TAL
VELA -5B
23S 36S
17H 18H
50S 53S
20H 22H
12r̄ 52S
23H
S
SHE
INP
VELA -5A
1r
49N
8H
0r 0r 0r 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 2r̄ 2r̄ 2r̄
53N 47N 36N 22N
9H 12H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 324 1977

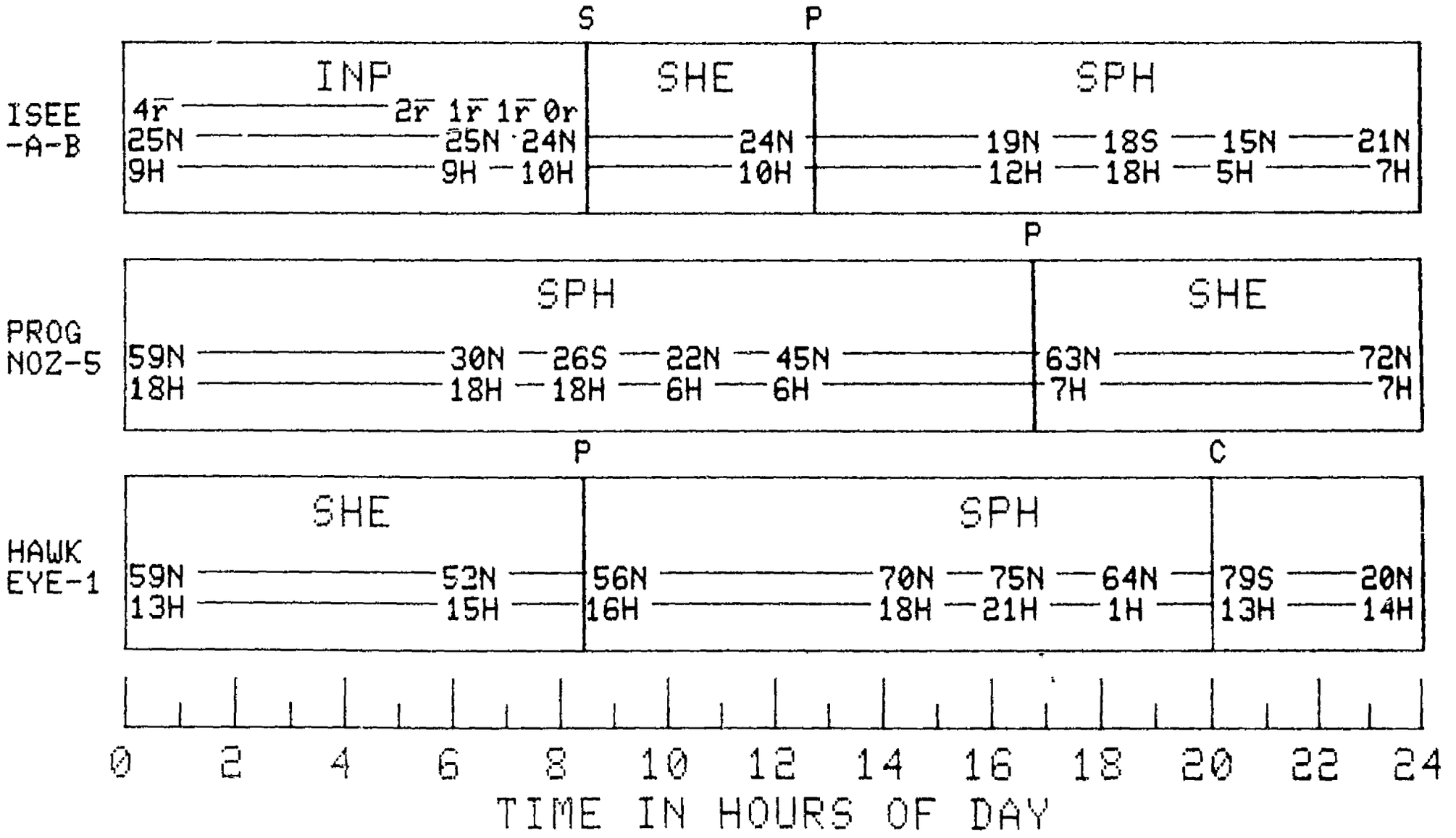

ISEE
-A-B
INP
2r̄
24N
8H
5r̄
25N
8H
6r̄
25N
8H
6r̄
25N
9H
5r̄
25N
9H
S
P
PROG
NOZ-5
INP
3r̄
81N
17H
2r̄ 1r̄
78N
18H
1r̄ 1r̄0r
75N
18H
SHE
68N
18H
59N
18H
HAWK
EYE-1
SHE
31N
14H
27N
15H
40N
16H
63N
15H
59N
13H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 325 1977
IMP-J
TAL
SHE
P
10r̄ 4r̄ 3r̄ 2r̄ 2r̄ 2r̄ 1r̄ 2r̄ 2r̄ 2r̄ 3r̄ 4r̄
29S 24S 20S 13S 10S
1H 1H 2H 2H 3H
IMP-H
INP
17r̄ 17r̄ 16r̄ 15r̄ 14r̄
12S 15S 17S 19S 21S
14H 14H 15H 15H 16H
SOL RAD -11B
INP
SHE
SPH
S
P
2r̄ 1r̄ 1r̄ 0r
5S 5S
16H 16H
10r
5S 5S 4S
18H 19H 20H
SOL RAD -11A
SPH
SHE
INP
P
S
8r
0r 0r 1r̄ 4r̄
5N 5N 5N 3N
4H 5H 7H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

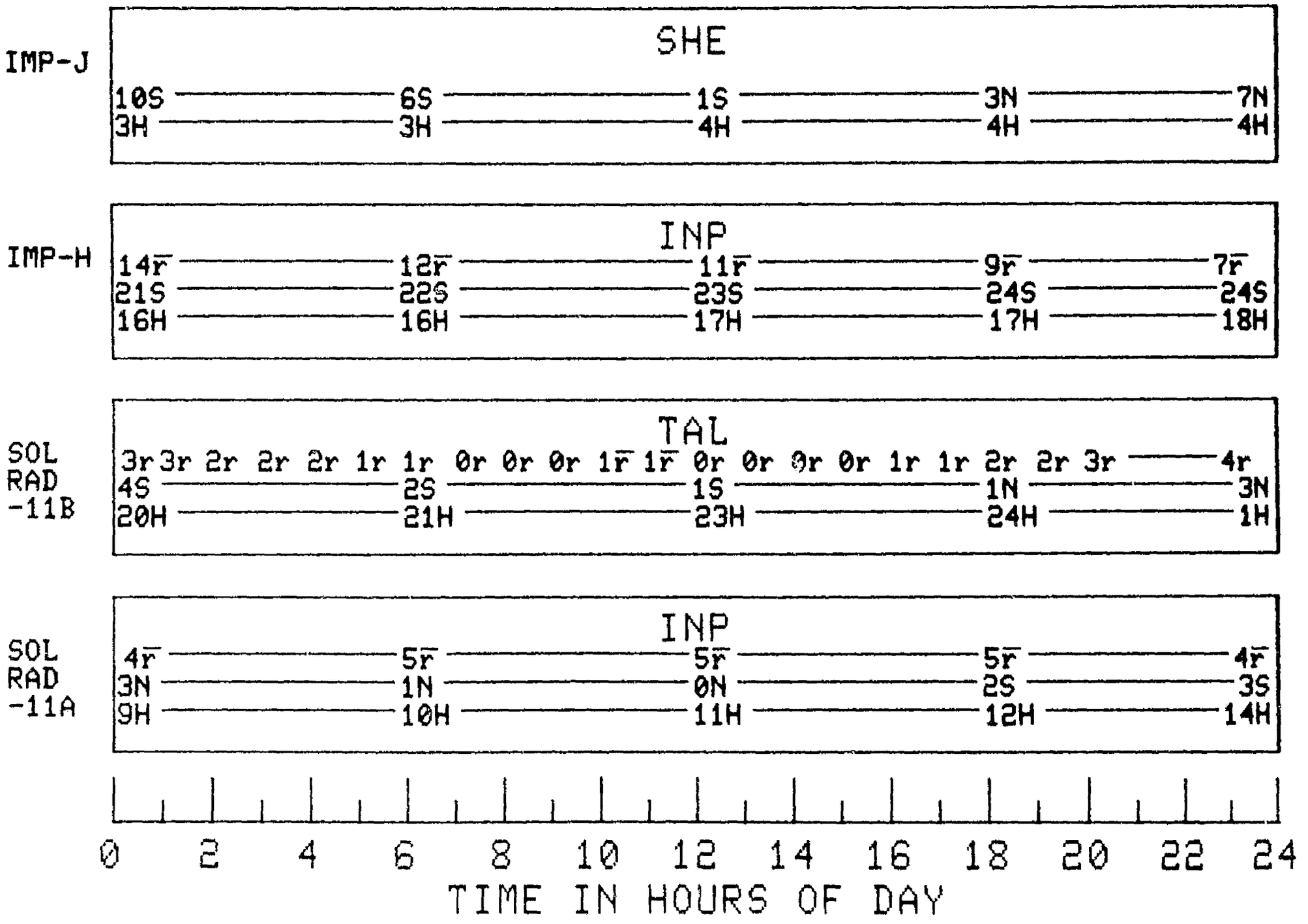
DAY 325 1977


S
SHE
INP
VELA -6B
3r 37N 6H
0r 0r 1r 1r 1r 1r 1r 1r 2r 2r
51N 52N 48N 38N
9H 10H 12H 13H
P
TAL
SPH
SHE
VELA -6A
6r 2r 1r 1r 2r 7r
35S 21S 6S 10N 25N
2H 3H 4H 4H 5H
TAL
VELA -5B
11r 7r 4r 3r 3r 3r 2r 2r 1r 0r 1r 2r
52S 45S 33S 18S 2S
23H 0H 2H 3H 4H
S
INP
SHE
VELA -5A
2r 1r 1r 1r 1r 1r 1r 0r 4r
22N 7N 5S 22S 35S
15H 15H 16H 17H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

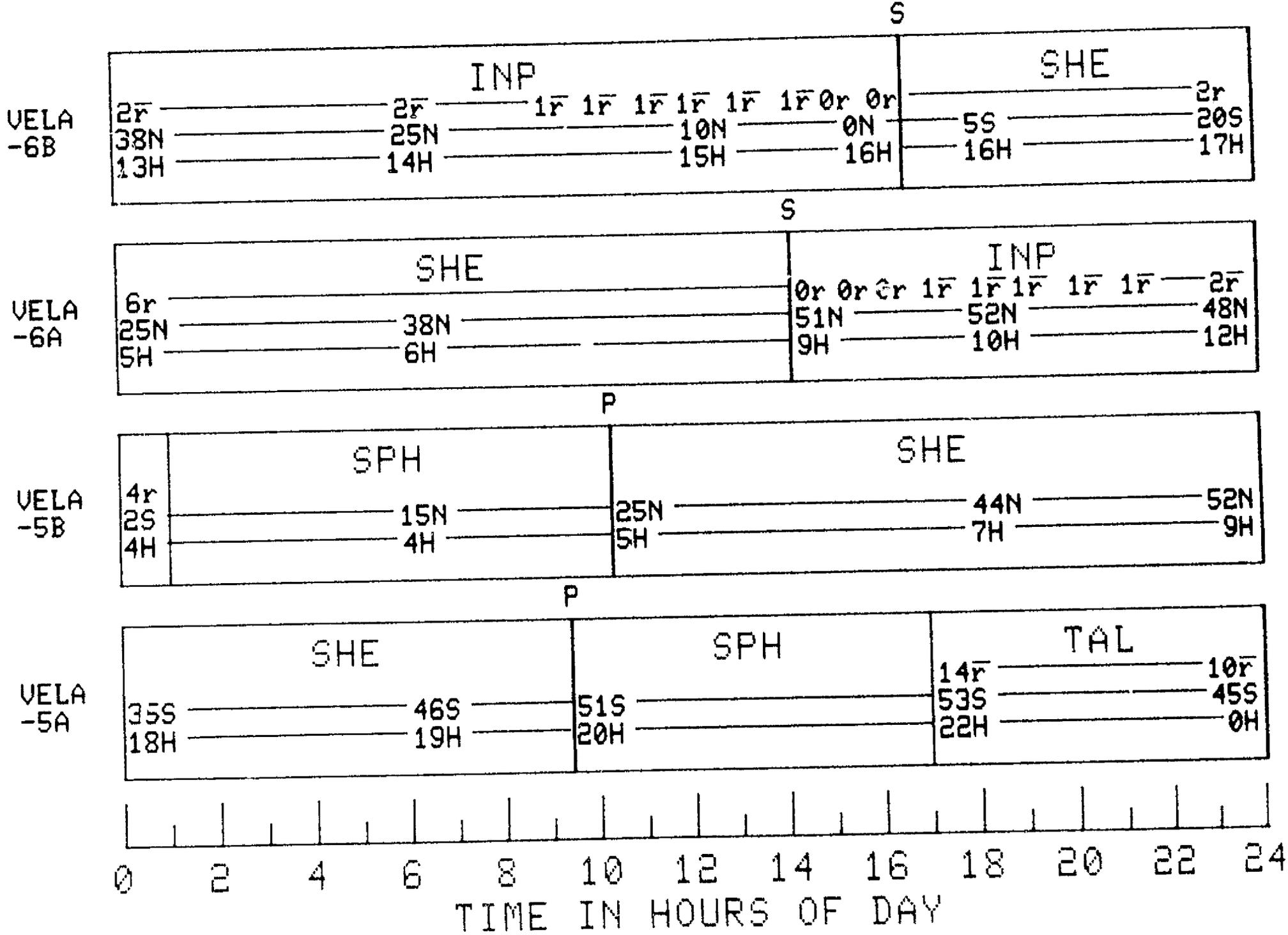
DAY 325 1977


S
P
INP
SHE
SPH
ISEE
-A-B
4r 2r 1r 1r 0r
25N 25N 24N 24N 19N 18S 15N 21N
9H 9H 10H 10H 12H 18H 5H 7H
P
SPH
SHE
PROG
NOZ-5
59N 30N 26S 22N 45N 63N 72N
18H 18H 18H 6H 6H 7H 7H
P
C
SHE
SPH
HAWK
EYE-1
59N 52N 56N 70N 75N 64N 79S 20N
13H 15H 16H 18H 21H 1H 13H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

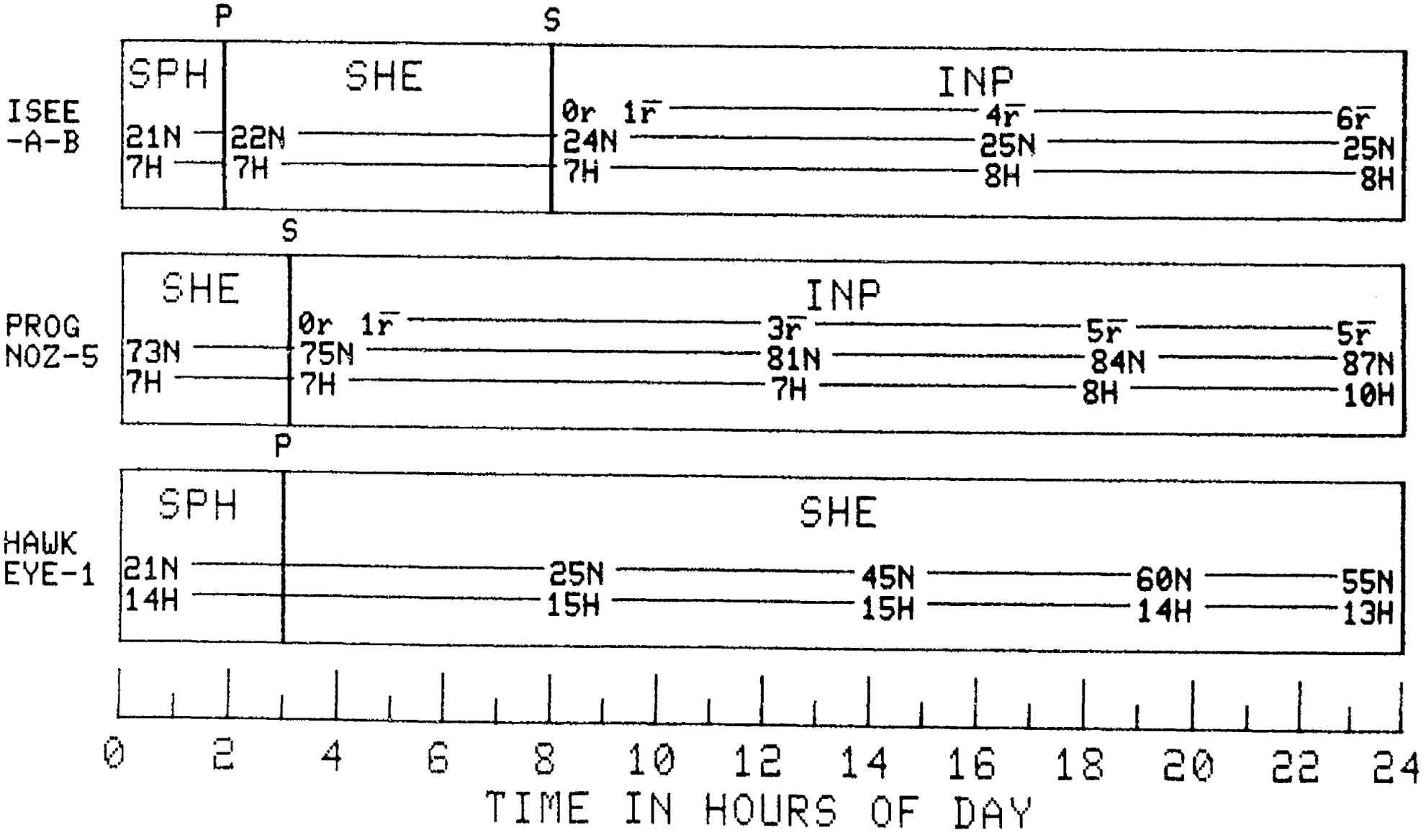
DAY 326 1977


IMP-J
SHE
10S 6S 1S 3N 7N
3H 3H 4H 4H 4H
IMP-H
INP
14r̄ 12r̄ 11r̄ 9r̄ 7r̄
21S 22S 23S 24S 24S
16H 16H 17H 17H 18H
SOL RAD -11B
TAL
3r 3r 2r 2r 2r 1r 1r 0r 0r 0r 1r̄ 1r̄ 0r 0r 0r 0r 1r 1r 2r 2r 3r 4r
4S 2S 1S 1N 3N
20H 21H 23H 24H 1H
SOL RAD -11A
INP
4r̄ 5r̄ 5r̄ 5r̄ 4r̄
3N 1N 0N 2S 3S
9H 10H 11H 12H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

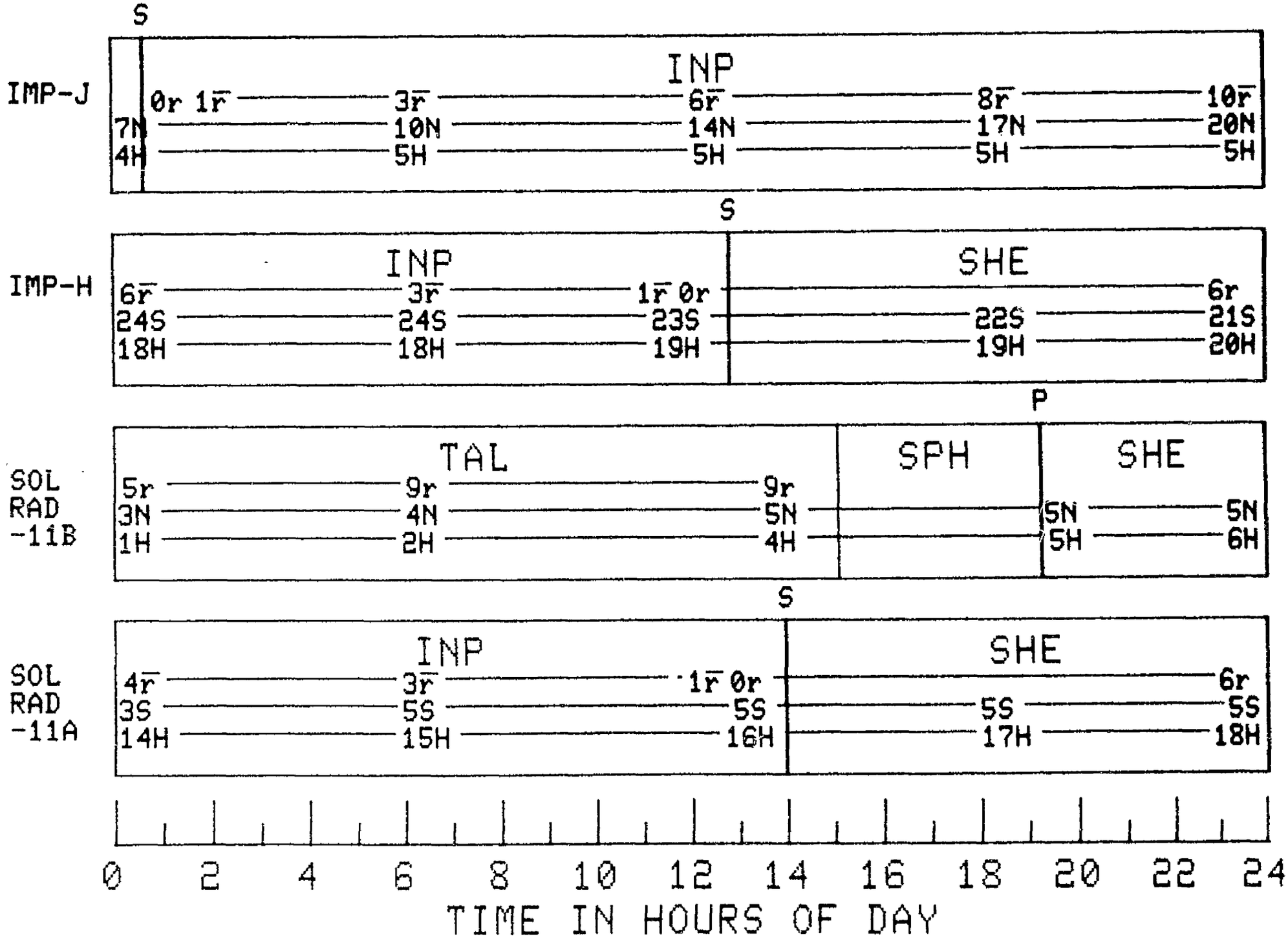
DAY 326 1977

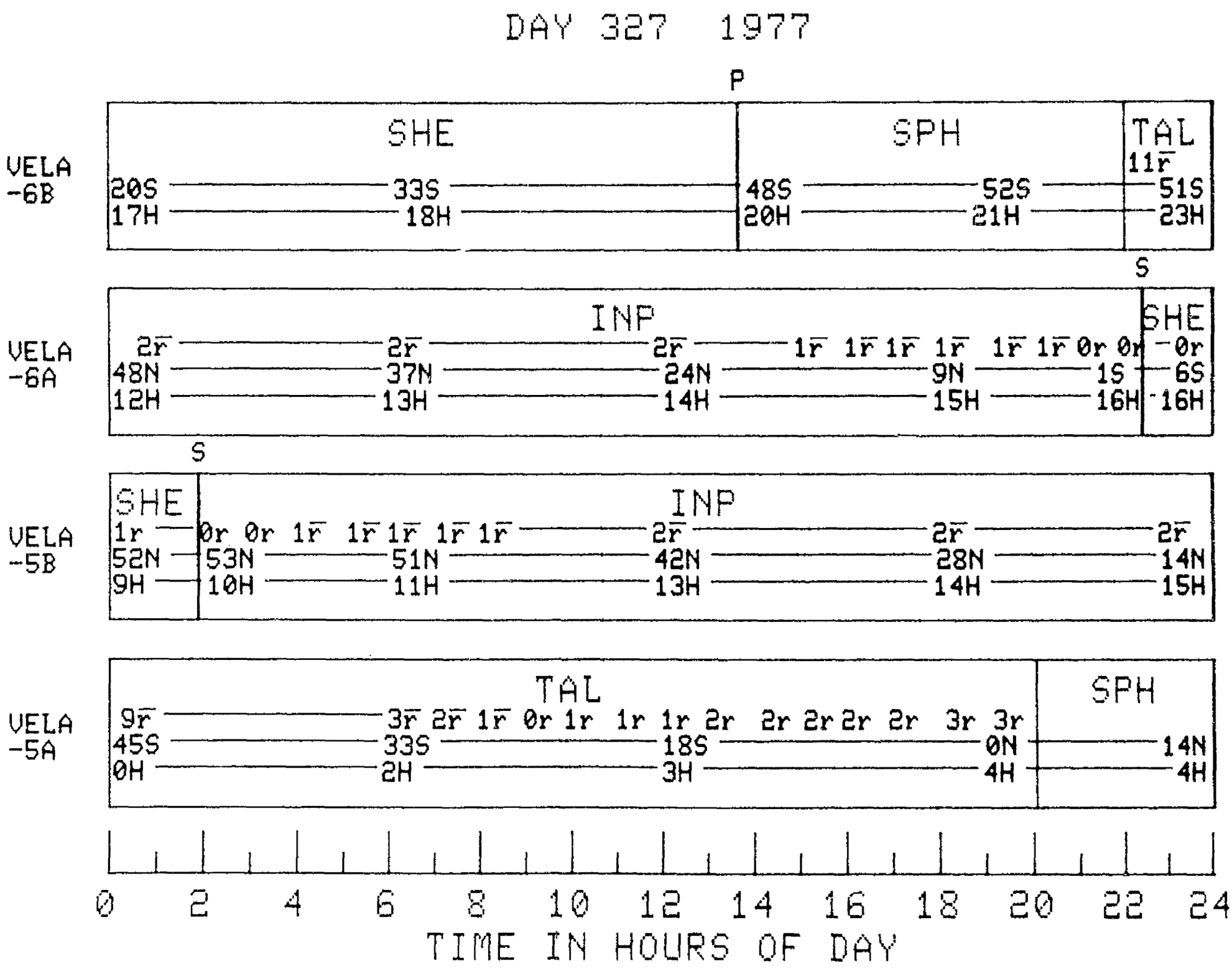

VELA -6B
INP
SHE
S
2r̄ 2r̄ 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 0r 0r
38N 25N 10N 0N
13H 14H 15H 16H
2r
5S 20S
16H 17H
VELA -6A
SHE
INP
S
6r
25N 38N
5H 6H
0r 0r 0r 1r̄ 1r̄ 1r̄ 1r̄ 1r̄ 2r̄
51N 52N 48N
9H 10H 12H
VELA -5B
SPH
SHE
P
4r
2S 15N
4H 4H
25N 44N 52N
5H 7H 9H
VELA -5A
SHE
SPH
TAL
P
35S 46S
18H 19H
51S
20H
14r̄ 10r̄
53S 45S
22H 0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 326 1977

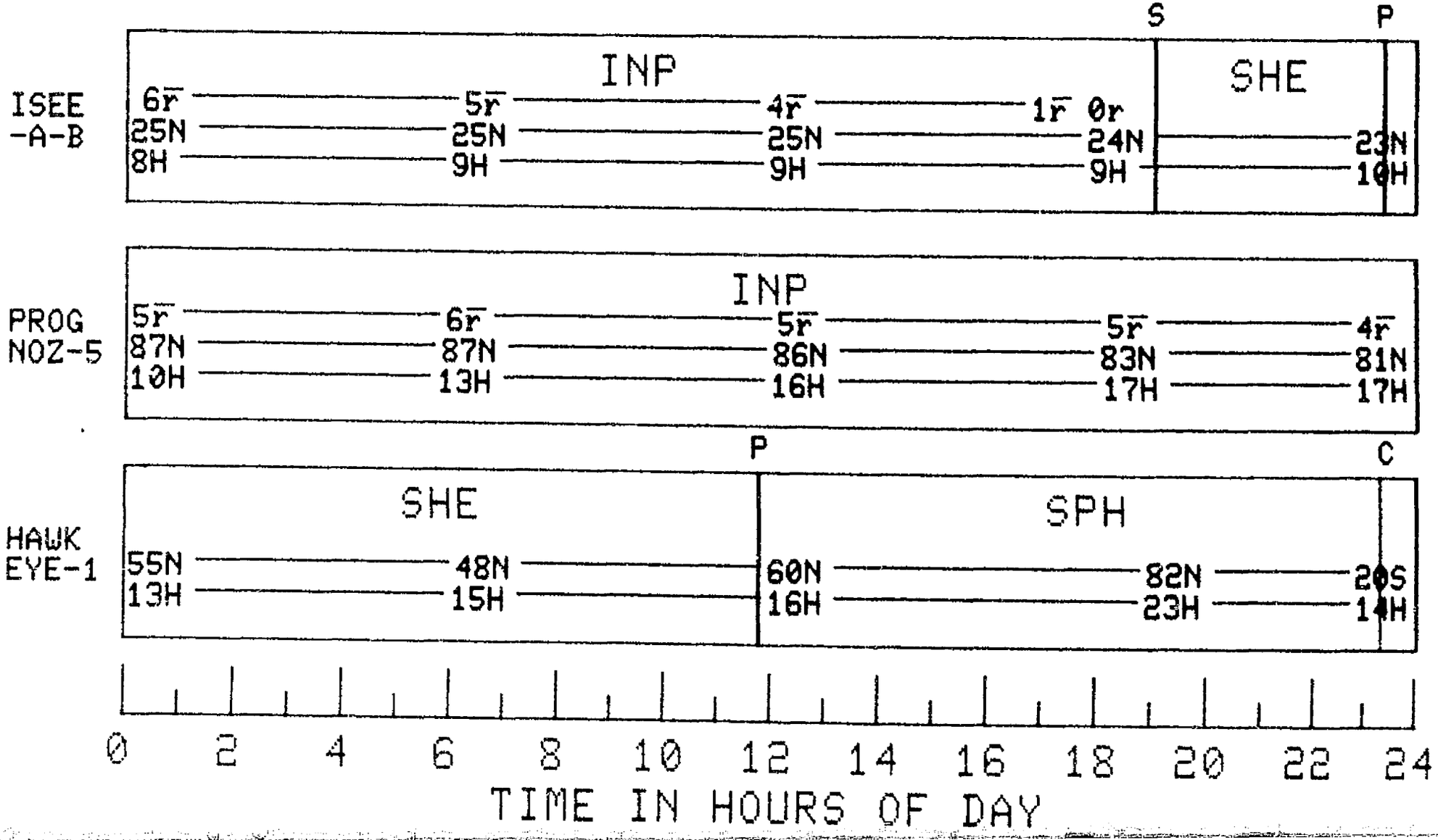

P
S
SPH
SHE
INP
ISEE
-A-B
21N
7H
22N
7H
0r
1r
24N
7H
4r
25N
8H
6r
25N
8H
S
SHE
INP
PROG
NOZ-5
73N
7H
75N
7H
0r
1r
81N
7H
3r
84N
8H
5r
87N
10H
P
SPH
SHE
HAWK
EYE-1
21N
14H
25N
15H
45N
15H
60N
14H
55N
13H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 327 1977


IMP-J
S
INP
0r 1r̄ 3r̄ 6r̄ 8r̄ 10r̄
7N 10N 14N 17N 20N
4H 5H 5H 5H 5H
IMP-H
S
INP
SHE
6r̄ 3r̄ 1r̄ 0r 6r
24S 24S 23S 22S 21S
18H 18H 19H 19H 20H
SOL RAD -11B
P
TAL
SPH
SHE
5r 9r 9r
3N 4N 5N 5N 5N
1H 2H 4H 5H 6H
SOL RAD -11A
S
INP
SHE
4r̄ 3r̄ 1r̄ 0r 6r
3S 5S 5S 5S 5S
14H 15H 16H 17H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

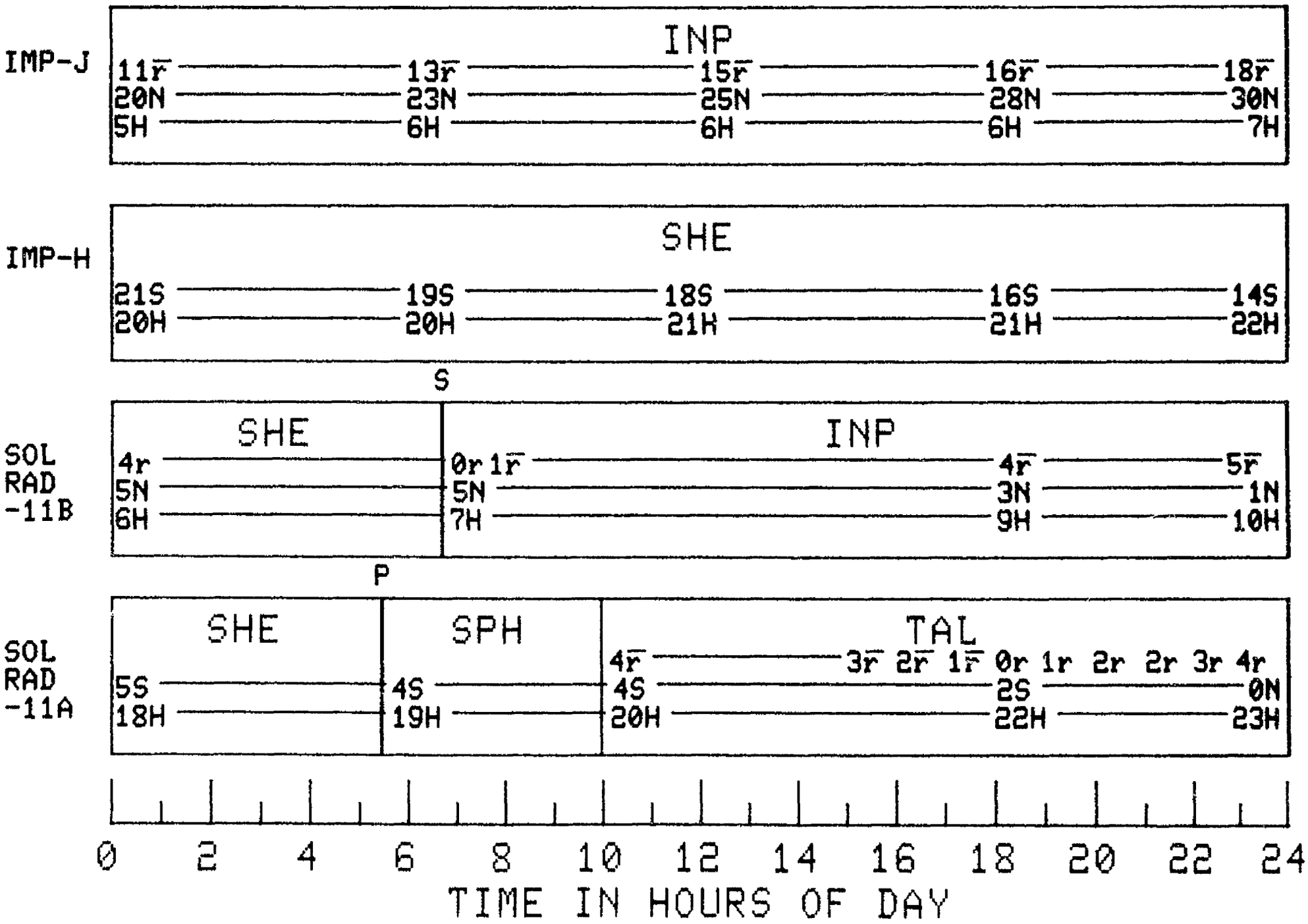

DAY 327 1977
P
SHE
SPH
TAL
VELA -6B
20S 33S 48S 52S 51S
17H 18H 20H 21H 23H
S
INP
SHE
VELA -6A
48N 37N 24N 9N 1S 6S
12H 13H 14H 15H 16H 16H
S
SHE
INP
VELA -5B
1r 0r 0r 1r 1r 1r 1r 1r 2r 2r 2r
52N 53N 51N 42N 28N 14N
9H 10H 11H 13H 14H 15H
TAL
SPH
VELA -5A
45S 33S 18S 0N 14N
0H 2H 3H 4H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 327 1977

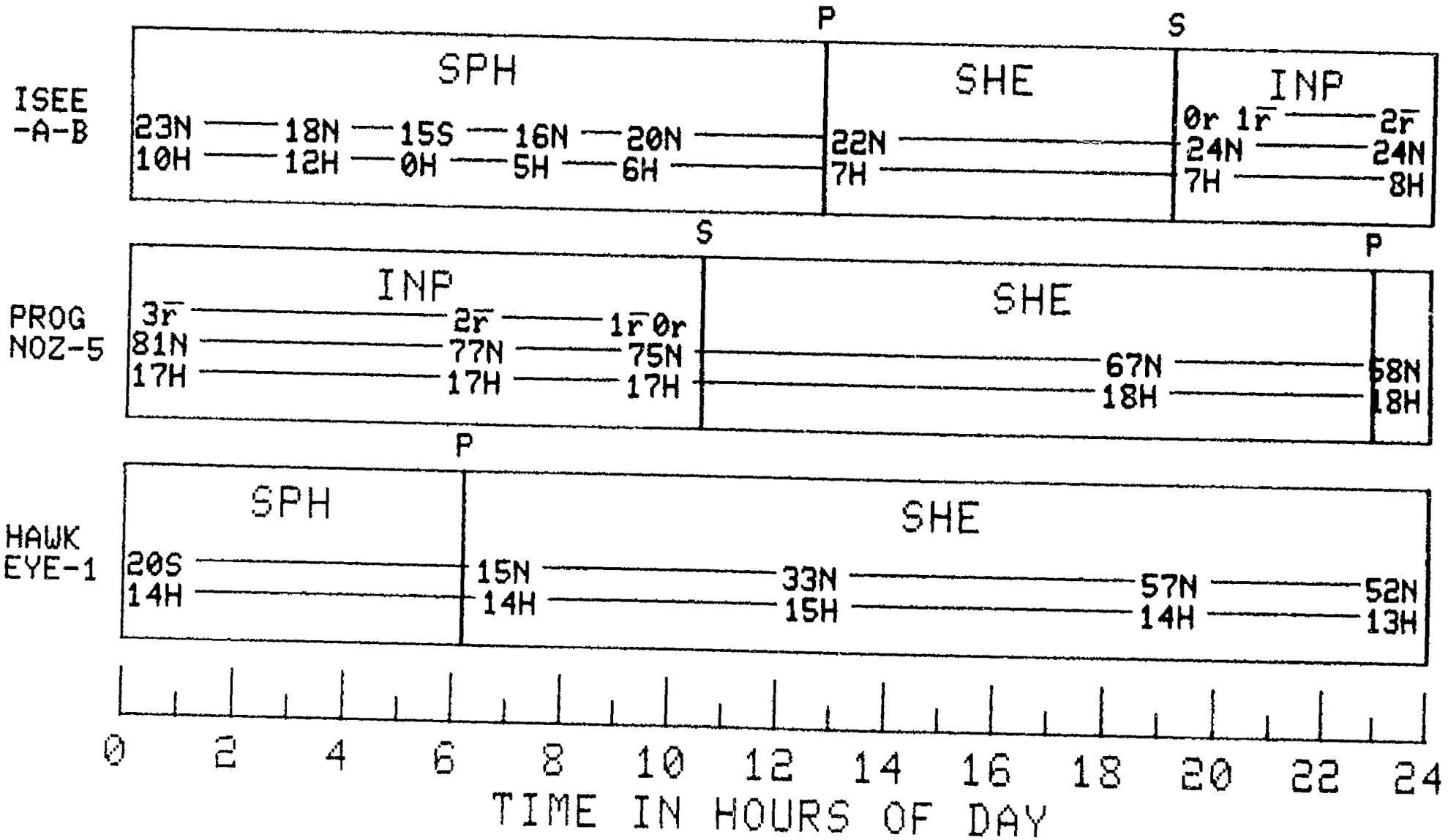

S
P
INP
SHE
ISEE
-A-B
6r
5r
4r
1r 0r
25N
25N
25N
24N
23N
8H
9H
9H
9H
10H
INP
PROG
NOZ-5
5r
6r
5r
5r
4r
87N
87N
86N
83N
81N
10H
13H
16H
17H
17H
P
C
SHE
SPH
HAWK
EYE-1
55N
48N
60N
82N
20S
13H
15H
16H
23H
14H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

C-6

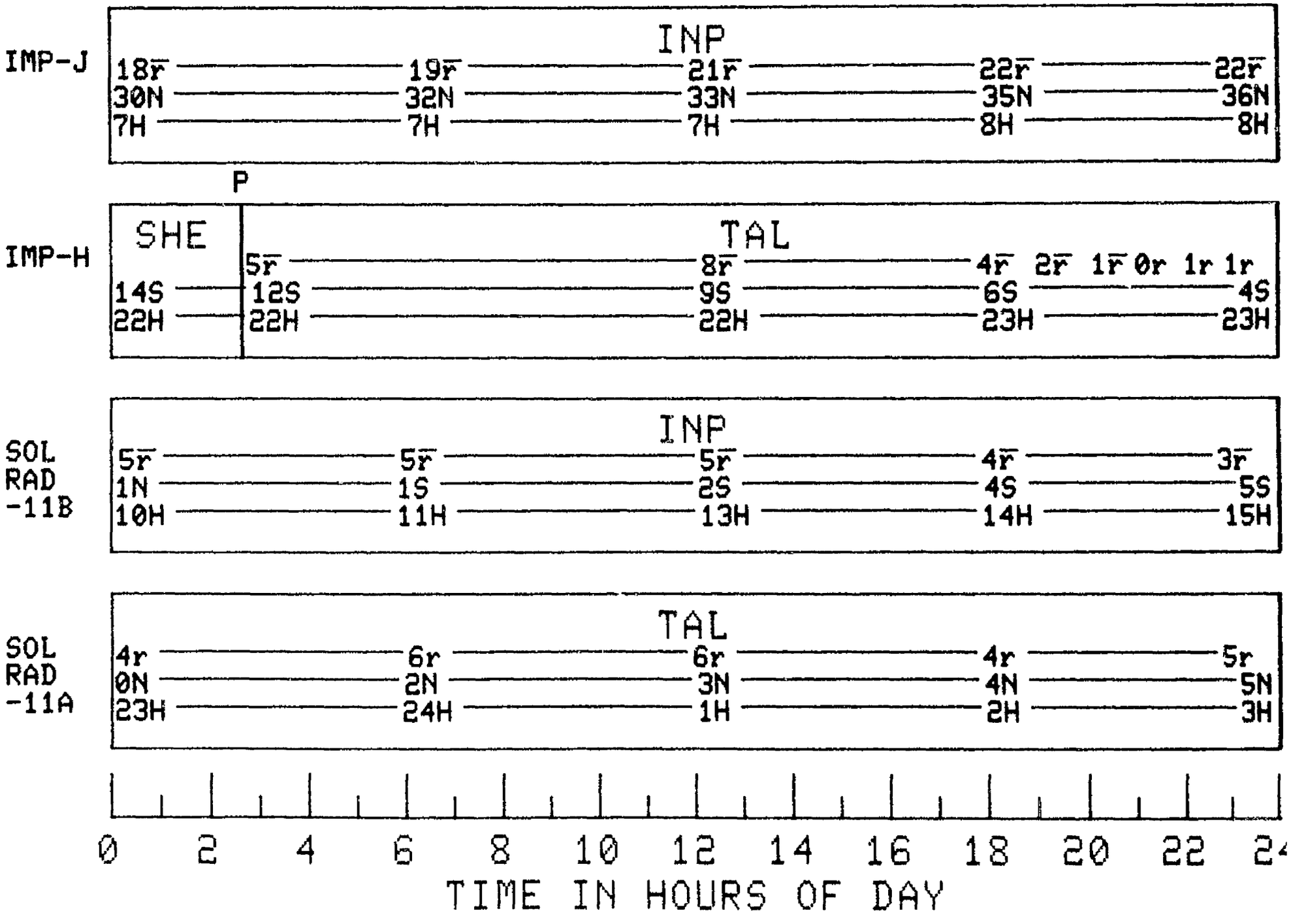
DAY 328 1977



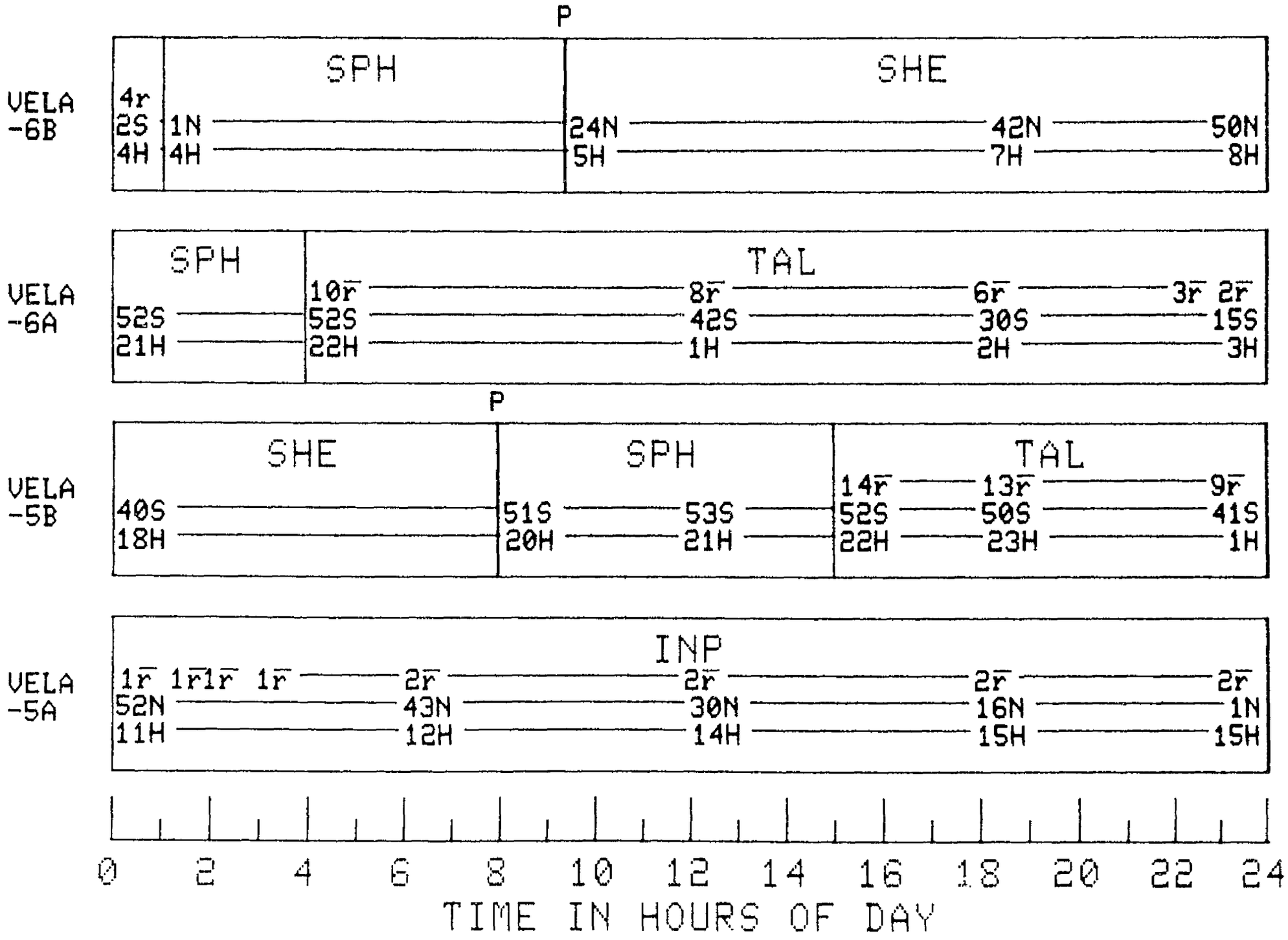
DAY 328 1977


ISEE
-A-B
P
S
SPH
INP
23N 18N 15S 16N 20N
10H 12H 0H 5H 6H
22N
7H
0r 1r 2r
24N 24N
7H 8H
PROG
NOZ-5
S
P
INP
SHE
3r 2r 1r 0r
81N 77N 75N
17H 17H 17H
67N 58N
18H 18H
HAWK
EYE-1
P
SPH
SHE
20S 15N 33N 57N 52N
14H 14H 15H 14H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

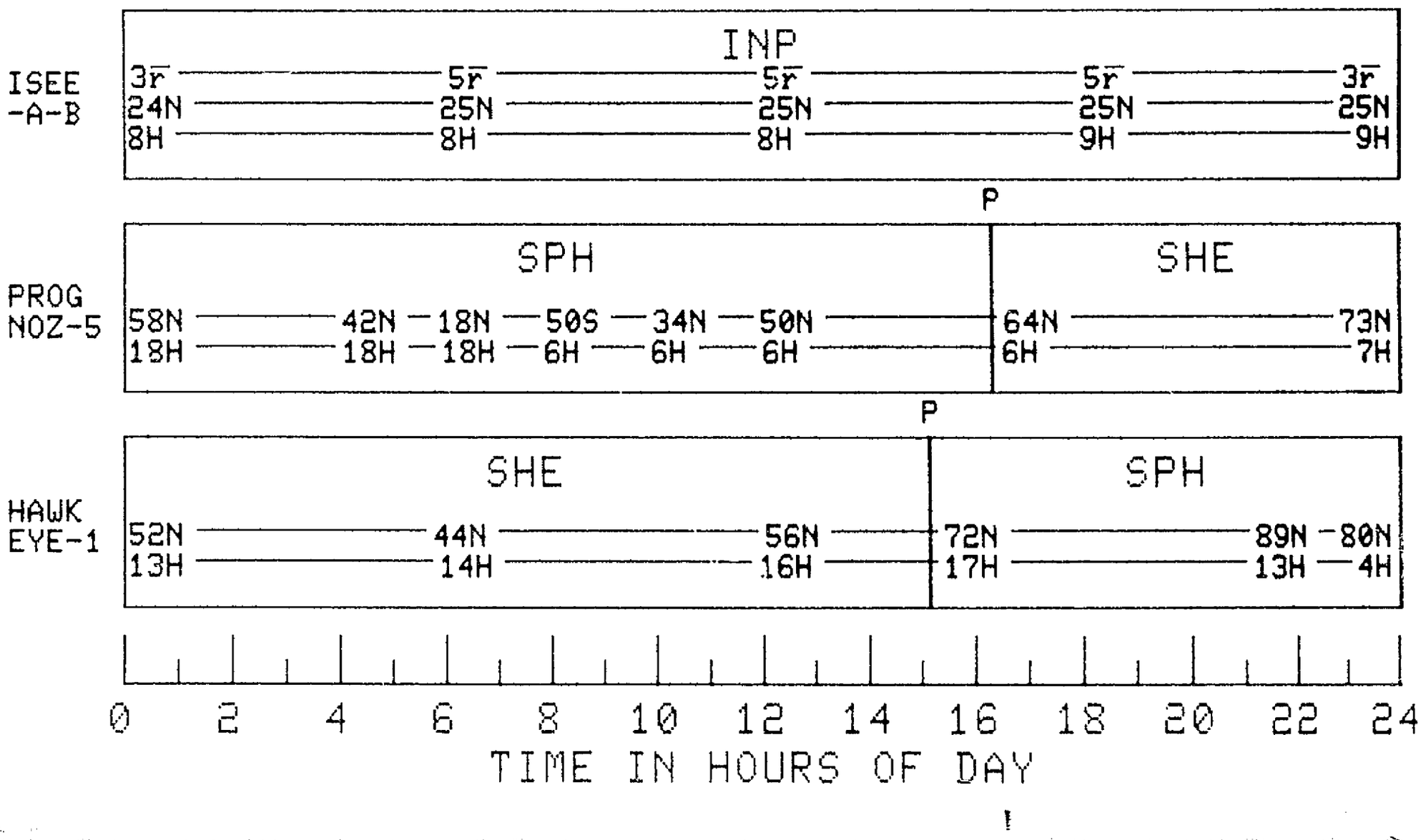
DAY 329 1977


IMP-J
INP
18r 19r 21r 22r 22r
30N 32N 33N 35N 36N
7H 7H 7H 8H 8H
P
IMP-H
SHE
TAL
5r 8r 4r 2r 1r 0r 1r 1r
14S 12S 9S 6S 4S
22H 22H 22H 23H 23H
SOL RAD -11B
INP
5r 5r 5r 4r 3r
1N 1S 2S 4S 5S
10H 11H 13H 14H 15H
SOL RAD -11A
TAL
4r 6r 6r 4r 5r
0N 2N 3N 4N 5N
23H 24H 1H 2H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

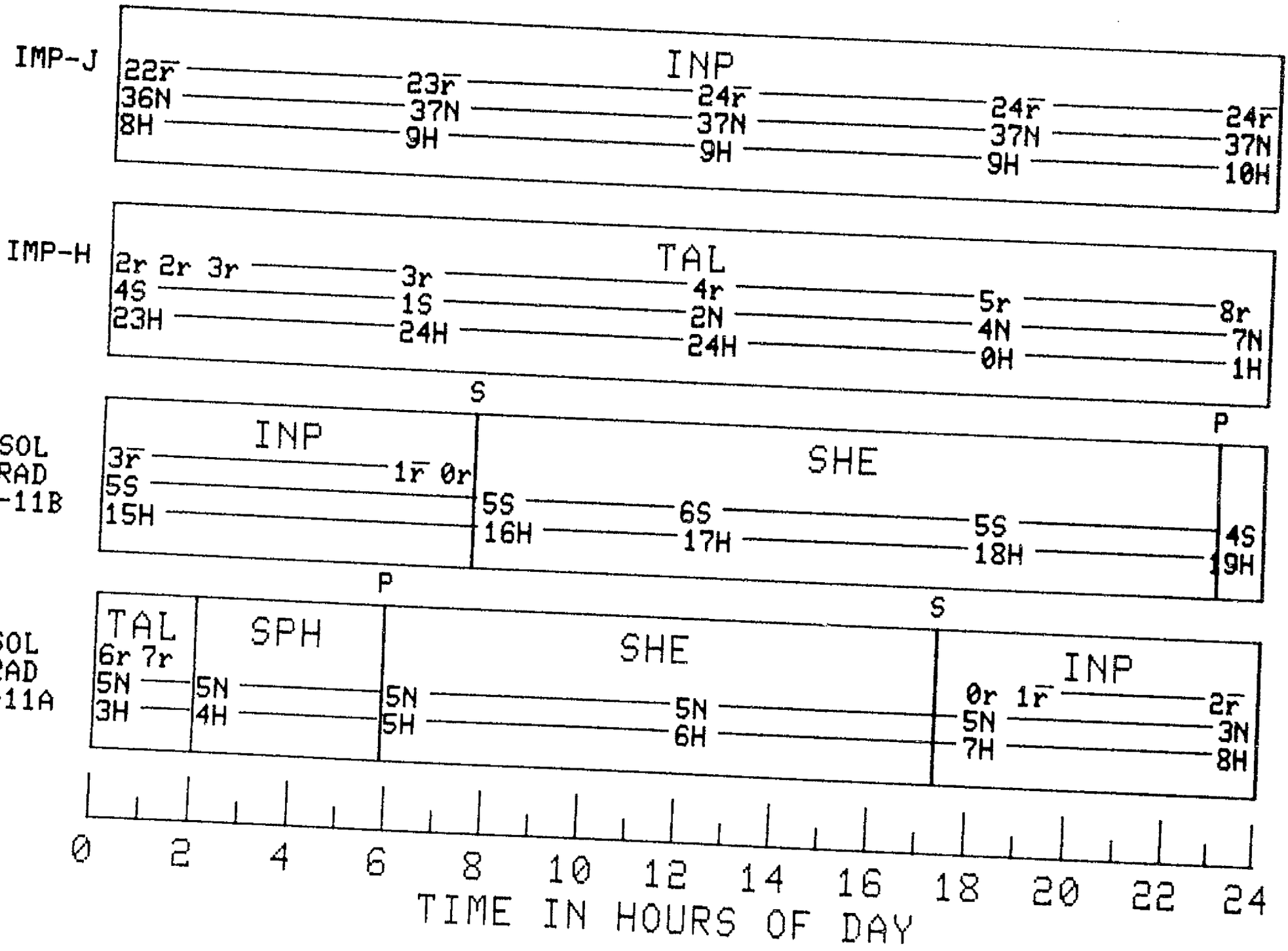
DAY 329 1977


P
VELA -6B
SPH
SHE
4r
2S 1N
4H 4H
24N
5H
42N
7H
50N
8H
VELA -6A
SPH
TAL
52S
21H
10r 8r 6r 3r 2r
52S 42S 30S 15S
22H 1H 2H 3H
P
VELA -5B
SHE
SPH
TAL
40S
18H
51S 53S
20H 21H
14r 13r 9r
52S 50S 41S
22H 23H 1H
VELA -5A
INP
1r 1r1r 1r 2r 2r 2r 2r
52N 43N 30N 16N 1N
11H 12H 14H 15H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

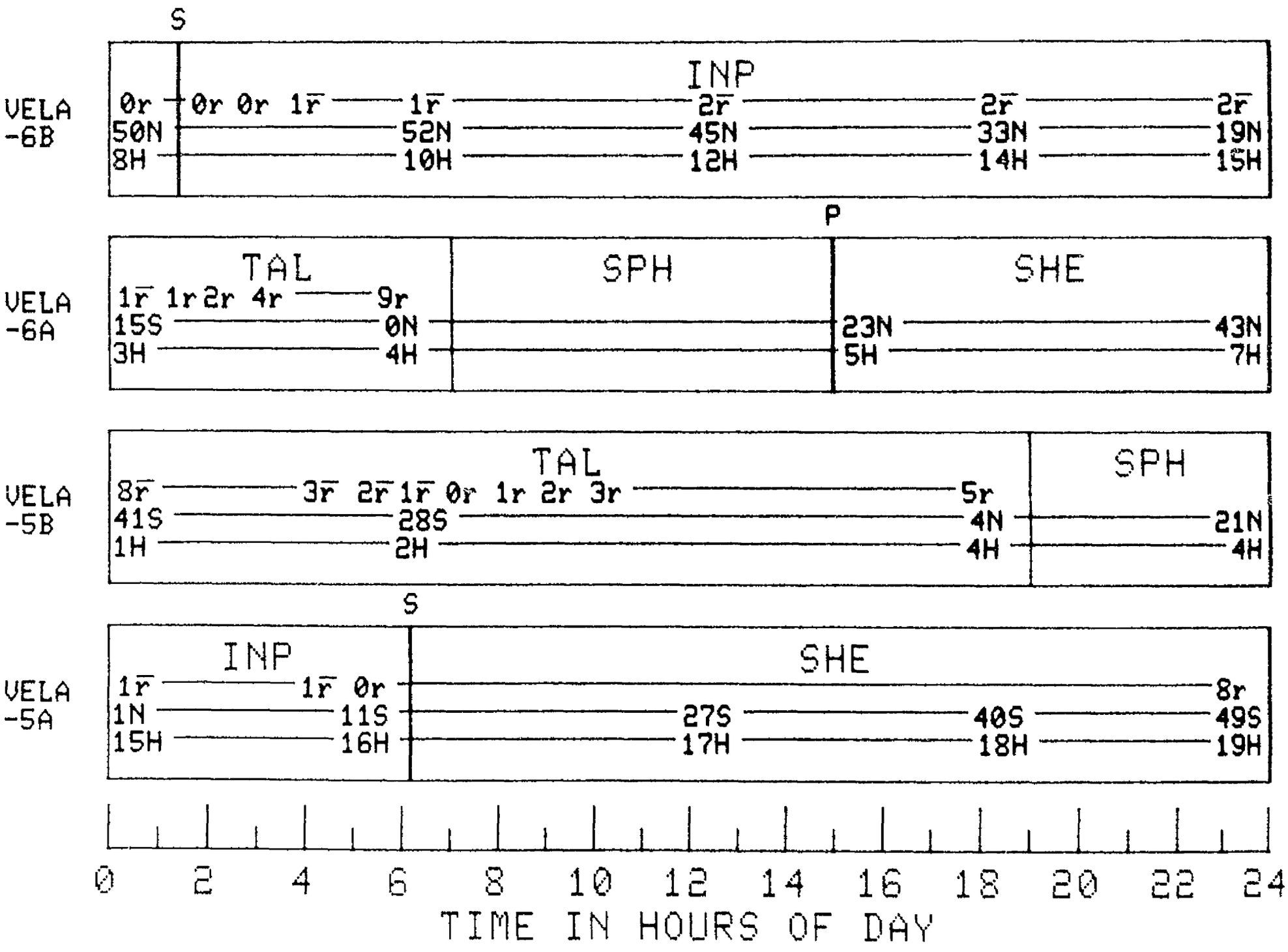
DAY 329 1977


ISEE
-A-B
INP
3r 5r 5r 5r 3r
24N 25N 25N 25N 25N
8H 8H 8H 9H 9H
P
PROG
NOZ-5
SPH
58N 42N 18N 50S 34N 50N
18H 18H 18H 6H 6H 6H
SHE
64N 73N
6H 7H
P
HAWK
EYE-1
SHE
52N 44N 56N
13H 14H 16H
SPH
72N 89N 80N
17H 13H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

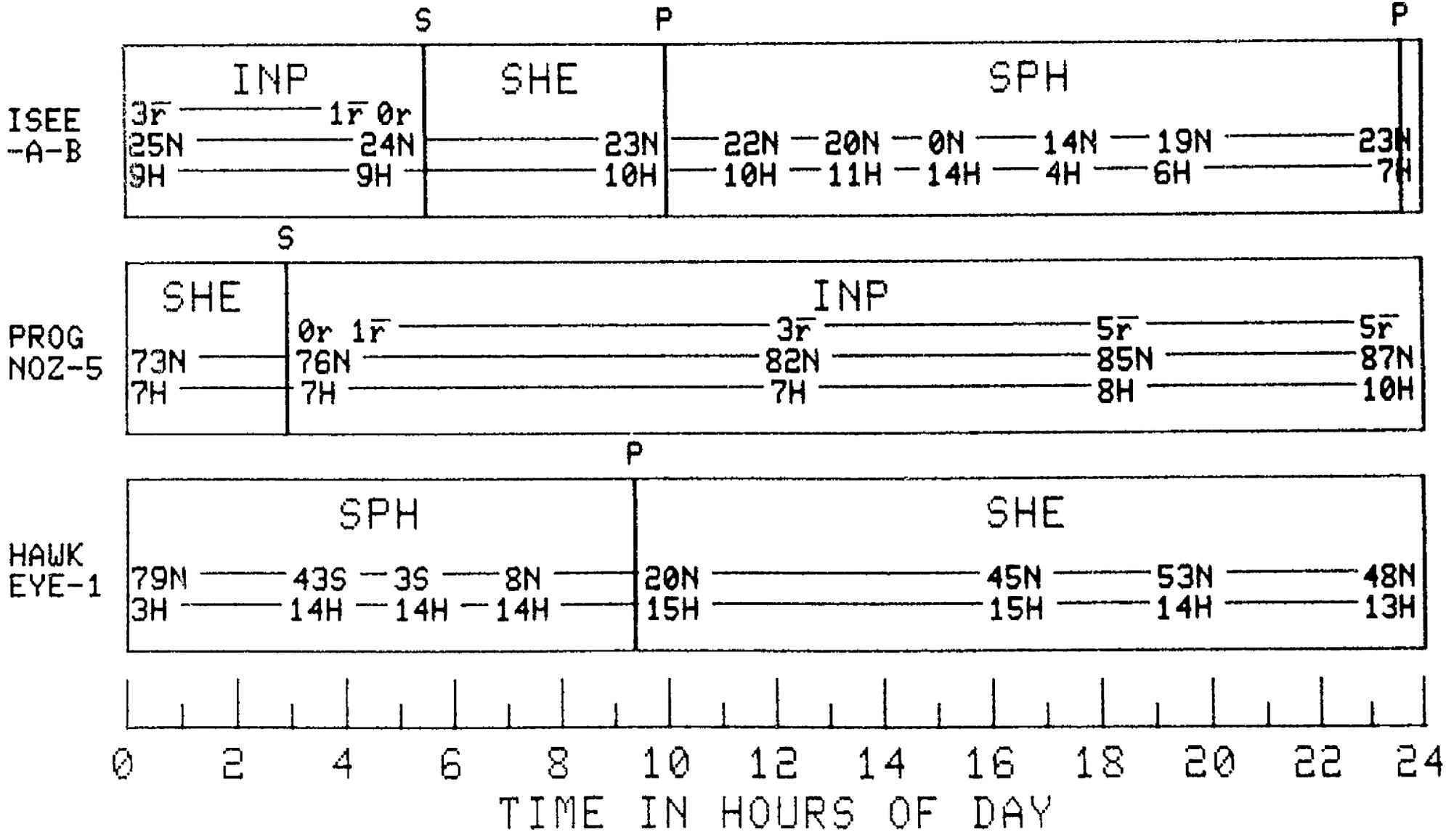
DAY 330 1977


IMP-J
INP
22r̄ 23r̄ 24r̄ 24r̄ 24r̄
36N 37N 37N 37N 37N
8H 9H 9H 9H 10H
IMP-H
TAL
2r 2r 3r 3r 4r 5r 8r
4S 1S 2N 4N 7N
23H 24H 24H 0H 1H
SOL RAD -11B
S
P
INP
SHE
3r̄ 1r̄ 0r
5S 5S 6S 5S 4S
15H 16H 17H 18H 19H
SOL RAD -11A
P
S
TAL
SPH
SHE
INP
6r 7r
5N 5N 5N 5N 0r 1r̄ 2r̄
3H 4H 5H 6H 5N 3N
7H 8H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

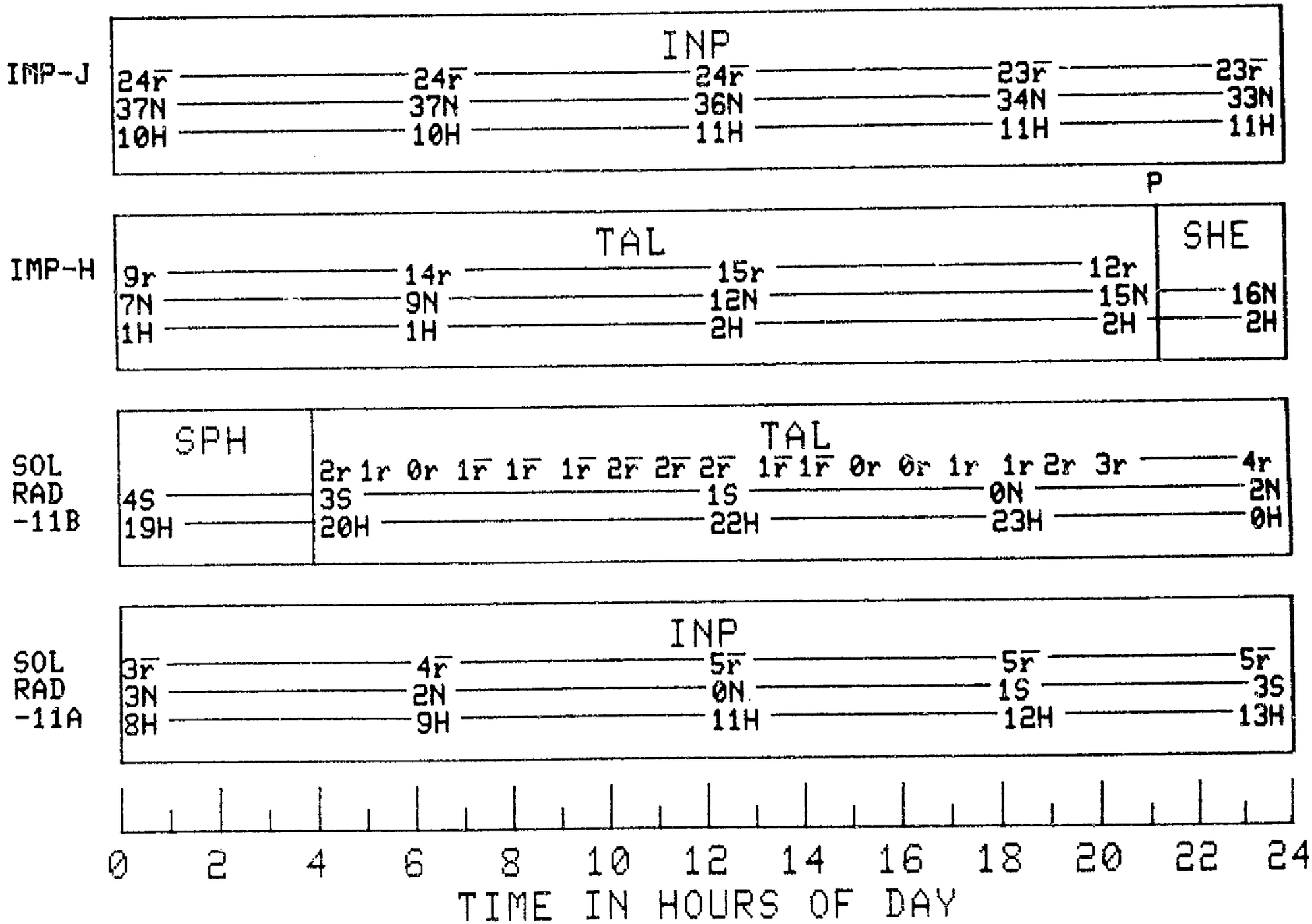
DAY 330 1977


S
INP
VELA -6B
0r 0r 0r 1r 1r 2r 2r 2r
50N 52N 45N 33N 19N
8H 10H 12H 14H 15H
P
TAL
SPH
SHE
VELA -6A
1r 1r 2r 4r 9r
15S 0N 23N 43N
3H 4H 5H 7H
TAL
SPH
VELA -5B
8r 3r 2r 1r 0r 1r 2r 3r 5r
41S 28S 4N 21N
1H 2H 4H 4H
S
INP
SHE
VELA -5A
1r 1r 0r 8r
1N 11S 27S 40S 49S
15H 16H 17H 18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

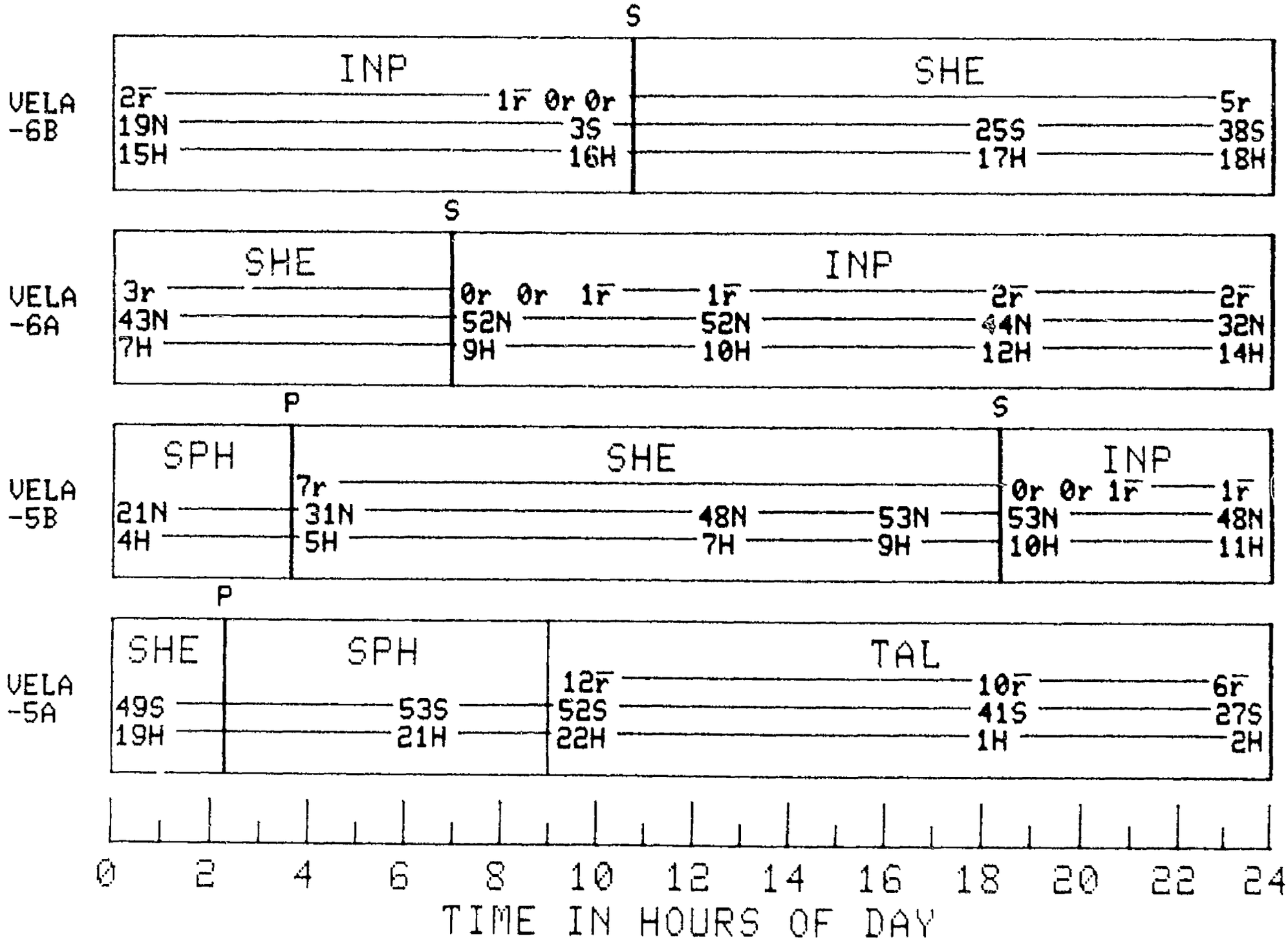
DAY 330 1977


S
P
P
INP
SHE
SPH
ISEE
-A-B
3r̄ 1r̄ 0r
25N 24N 23N 22N 20N 0N 14N 19N 23N
9H 9H 10H 10H 11H 14H 4H 6H 7H
S
SHE
INP
PROG
NOZ-5
0r 1r̄ 3r̄ 5r̄ 5r̄
73N 76N 82N 85N 87N
7H 7H 7H 8H 10H
P
SPH
SHE
HAWK
EYE-1
79N 43S 3S 8N 20N 45N 53N 48N
3H 14H 14H 14H 15H 15H 14H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

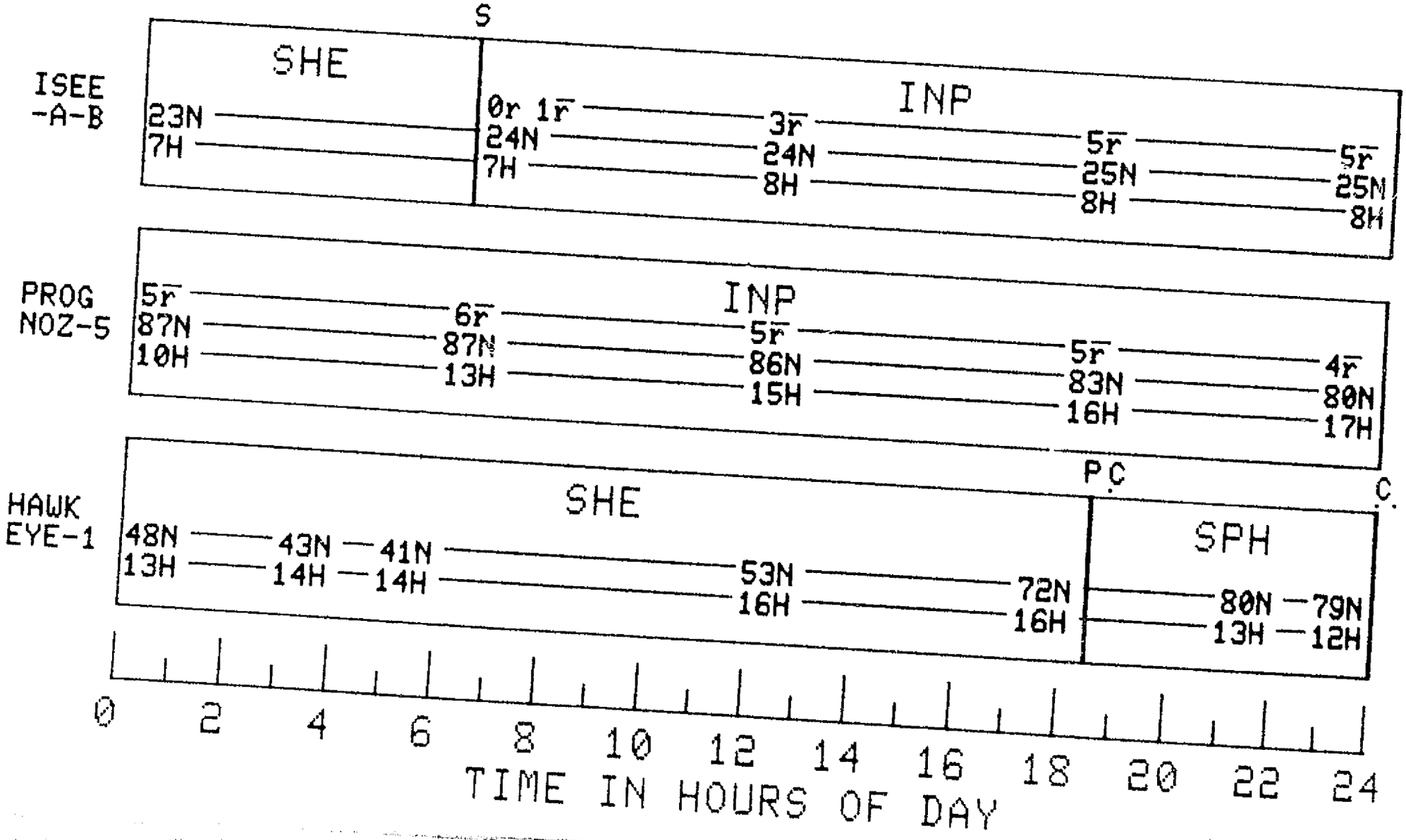
DAY 331 1977


IMP-J
INP
24r̄ 24r̄ 24r̄ 23r̄ 23r̄
37N 37N 36N 34N 33N
10H 10H 11H 11H 11H
P
IMP-H
TAL
SHE
9r 14r 15r 12r
7N 9N 12N 15N 16N
1H 1H 2H 2H 2H
SOL RAD -11B
SPH
TAL
2r 1r 0r 1r̄ 1r̄ 1r̄ 2r̄ 2r̄ 2r̄ 1r̄ 1r̄ 0r 0r 1r 1r 2r 3r 4r
4S 3S 1S 0N 2N
19H 20H 22H 23H 0H
SOL RAD -11A
INP
3r̄ 4r̄ 5r̄ 5r̄ 5r̄
3N 2N 0N 1S 3S
8H 9H 11H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

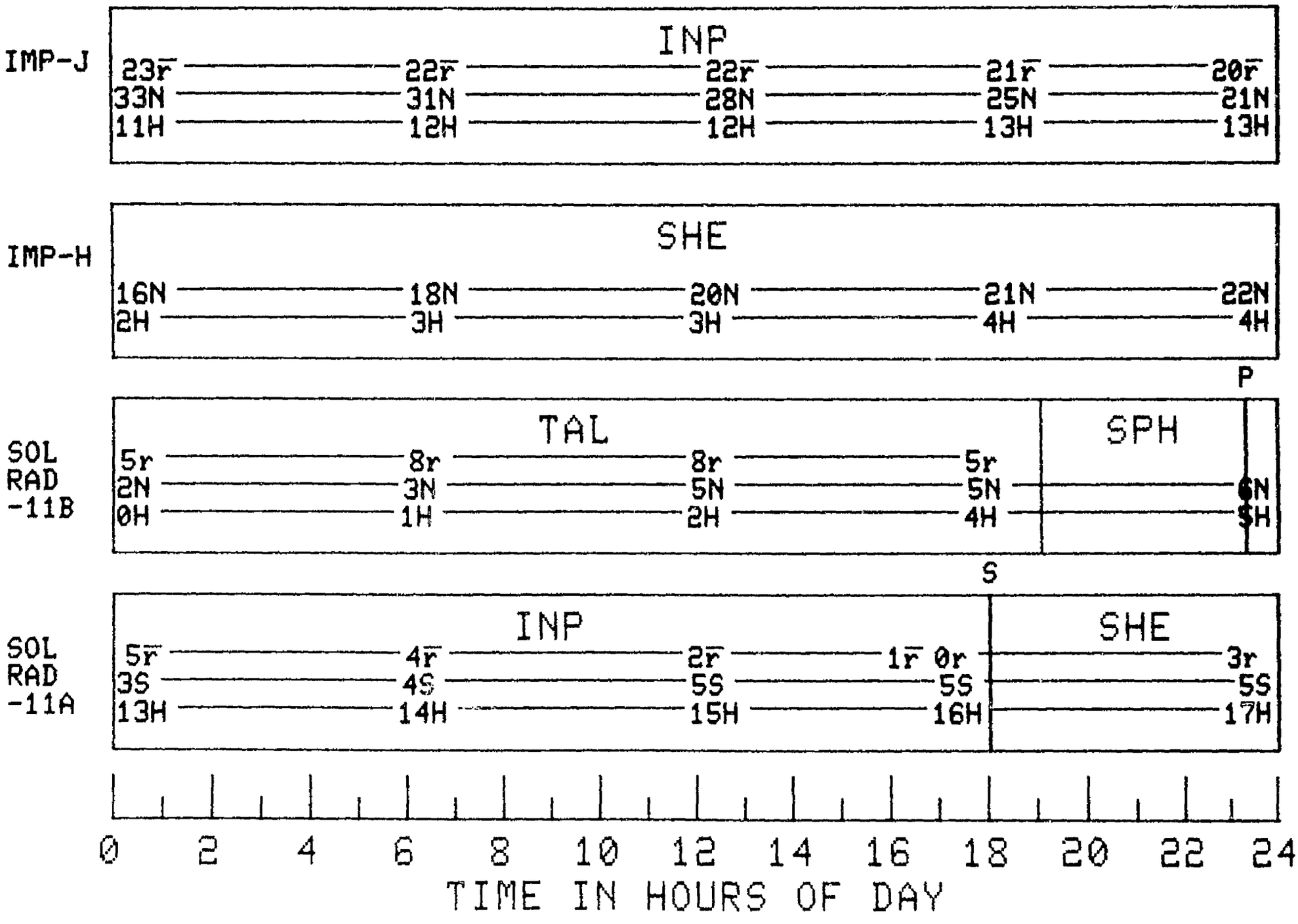
DAY 331 1977

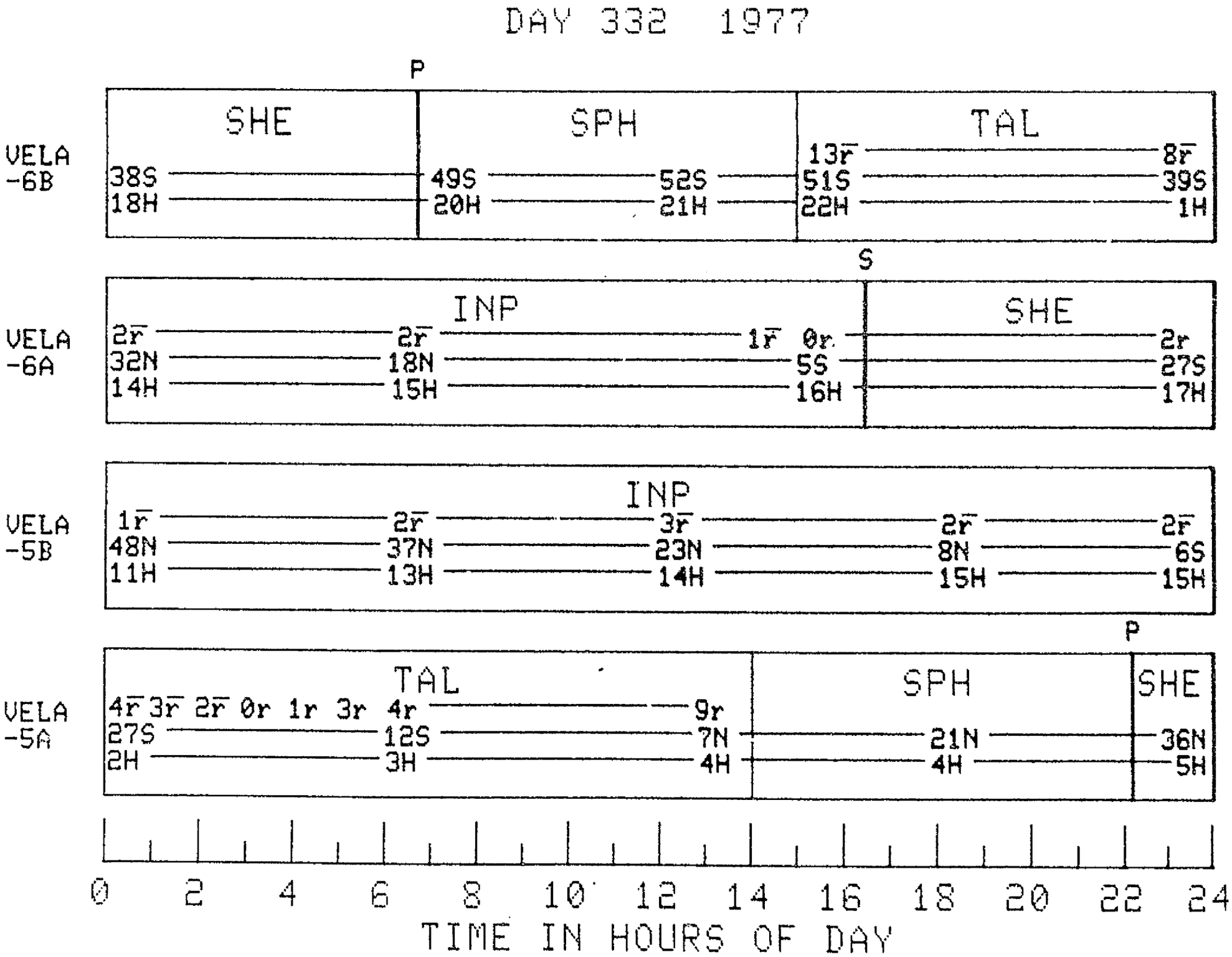

S
INP
SHE
VELA -6B
2r̄ 1r̄ 0r 0r 5r
19N 3S 25S 38S
15H 16H 17H 18H
S
SHE
INP
VELA -6A
3r 0r 0r 1r̄ 1r̄ 2r̄ 2r̄
43N 52N 52N 44N 32N
7H 9H 10H 12H 14H
P
S
SPH
SHE
INP
VELA -5B
7r 0r 0r 1r̄ 1r̄
21N 31N 48N 53N 53N 48N
4H 5H 7H 9H 10H 11H
P
SHE
SPH
TAL
VELA -5A
12r̄ 10r̄ 6r̄
49S 53S 52S 41S 27S
19H 21H 22H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 331 1977

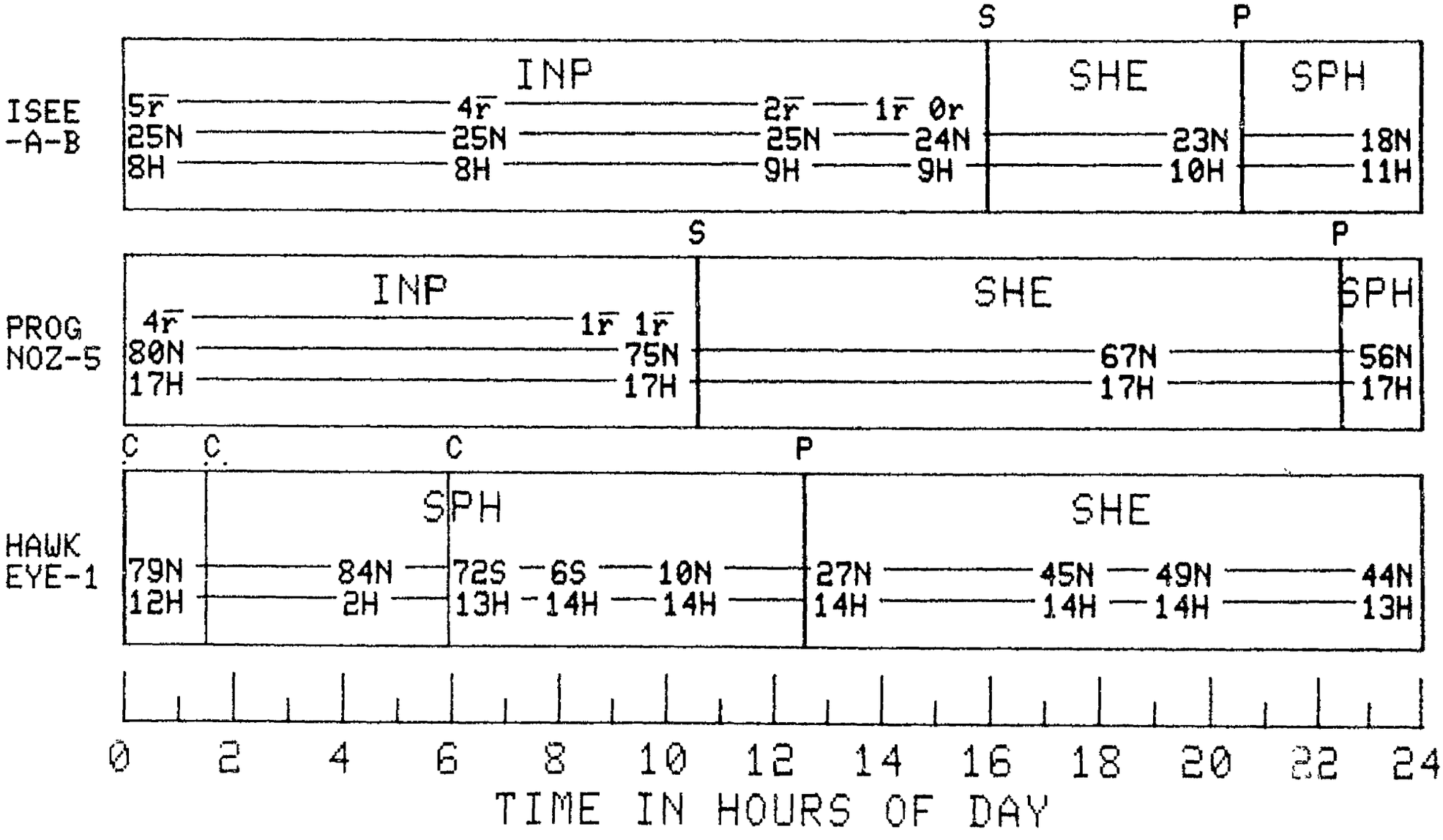

S
SHE
INP
ISEE
-A-B
23N
7H
0r 1r
24N
7H
3r
24N
8H
5r
25N
8H
5r
25N
8H
PROG
NOZ-5
INP
5r
87N
10H
6r
87N
13H
5r
86N
15H
5r
83N
16H
4r
80N
17H
PC
C
HAWK
EYE-1
SHE
SPH
48N
13H
43N
14H
41N
14H
53N
16H
72N
16H
80N
13H
79N
12H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 332 1977

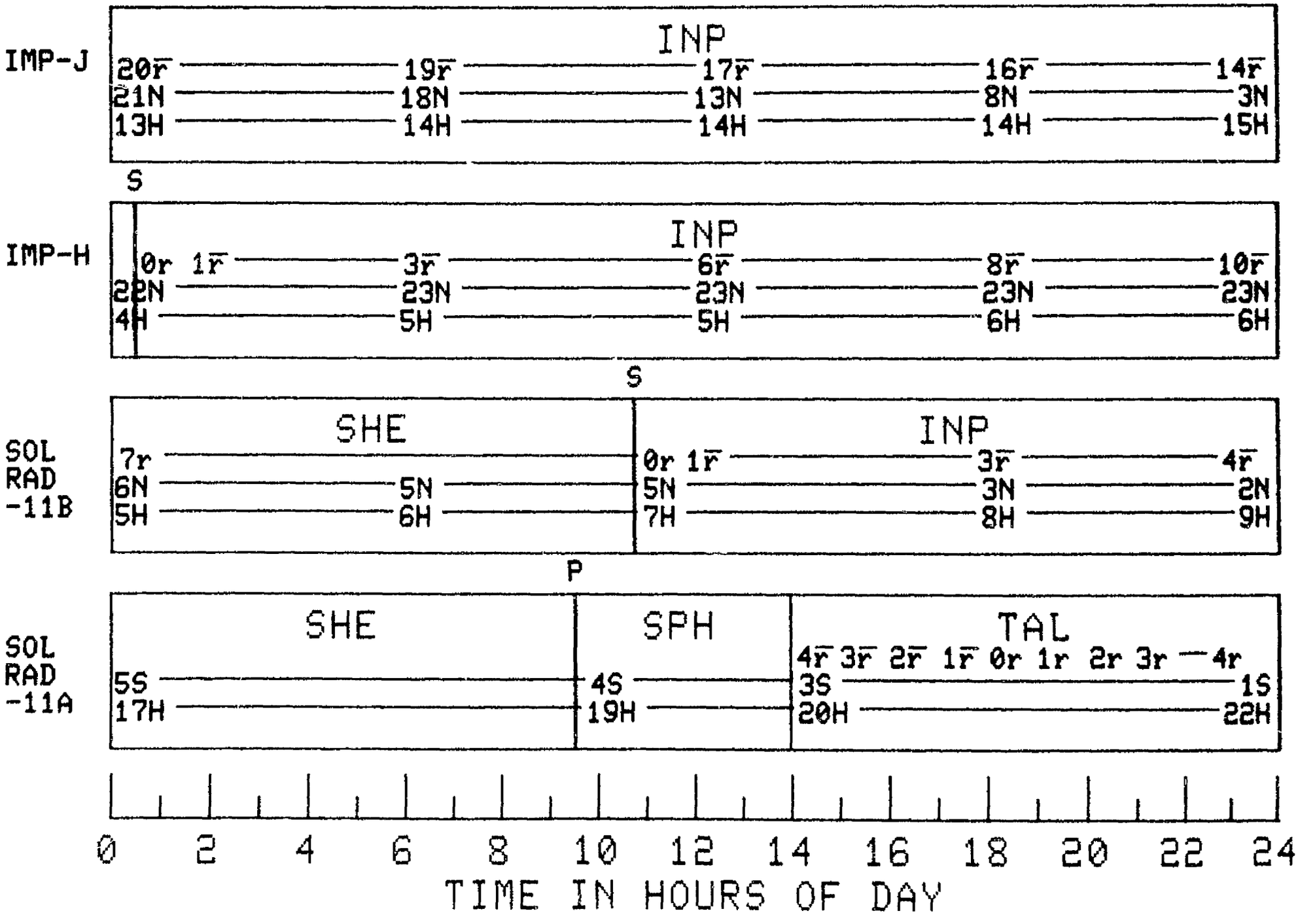

IMP-J
INP
23r 22r 22r 21r 20r
33N 31N 28N 25N 21N
11H 12H 12H 13H 13H
IMP-H
SHE
16N 18N 20N 21N 22N
2H 3H 3H 4H 4H
P
SOL RAD -11B
TAL
SPH
5r 8r 8r 5r
2N 3N 5N 5N 6N
0H 1H 2H 4H 5H
S
SOL RAD -11A
INP
SHE
5r 4r 2r 1r 0r 3r
3S 4S 5S 5S 5S
13H 14H 15H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 332 1977
P
SHE
SPH
TAL
VELA -6B
38S 18H
49S 20H
52S 21H
13r̄ 51S 22H
8r̄ 39S 1H
S
INP
SHE
VELA -6A
2r̄ 32N 14H
2r̄ 18N 15H
1r̄ 0r 5S 16H
2r 27S 17H
INP
VELA -5B
1r̄ 48N 11H
2r̄ 37N 13H
3r̄ 23N 14H
2r̄ 8N 15H
2r̄ 6S 15H
P
TAL
SPH
SHE
VELA -5A
4r̄ 3r̄ 2r̄ 0r 1r 3r 4r 27S 2H
12S 3H
9r 7N 4H
21N 4H
36N 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

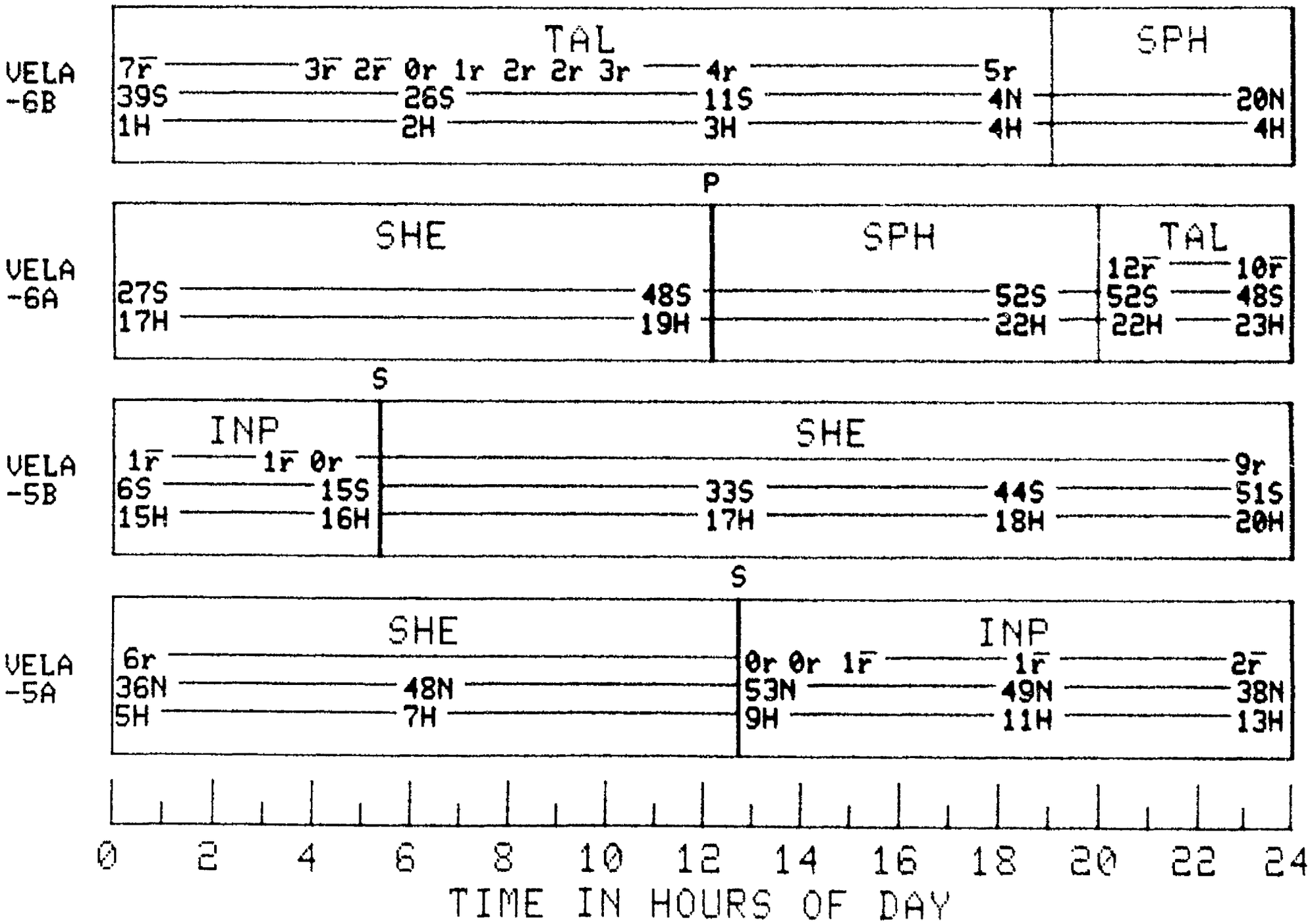
DAY 332 1977


S
P
INP
SHE
SPH
ISEE
-A-B
5r 4r 2r 1r 0r
25N 25N 25N 24N 23N 18N
8H 8H 9H 9H 10H 11H
S
P
INP
SHE
SPH
PROG
NOZ-5
4r 1r 1r
80N 75N 67N 56N
17H 17H 17H 17H
C
C
C
P
SPH
SHE
HAWK
EYE-1
79N 84N 72S 6S 10N 27N 45N 49N 44N
12H 2H 13H 14H 14H 14H 14H 14H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

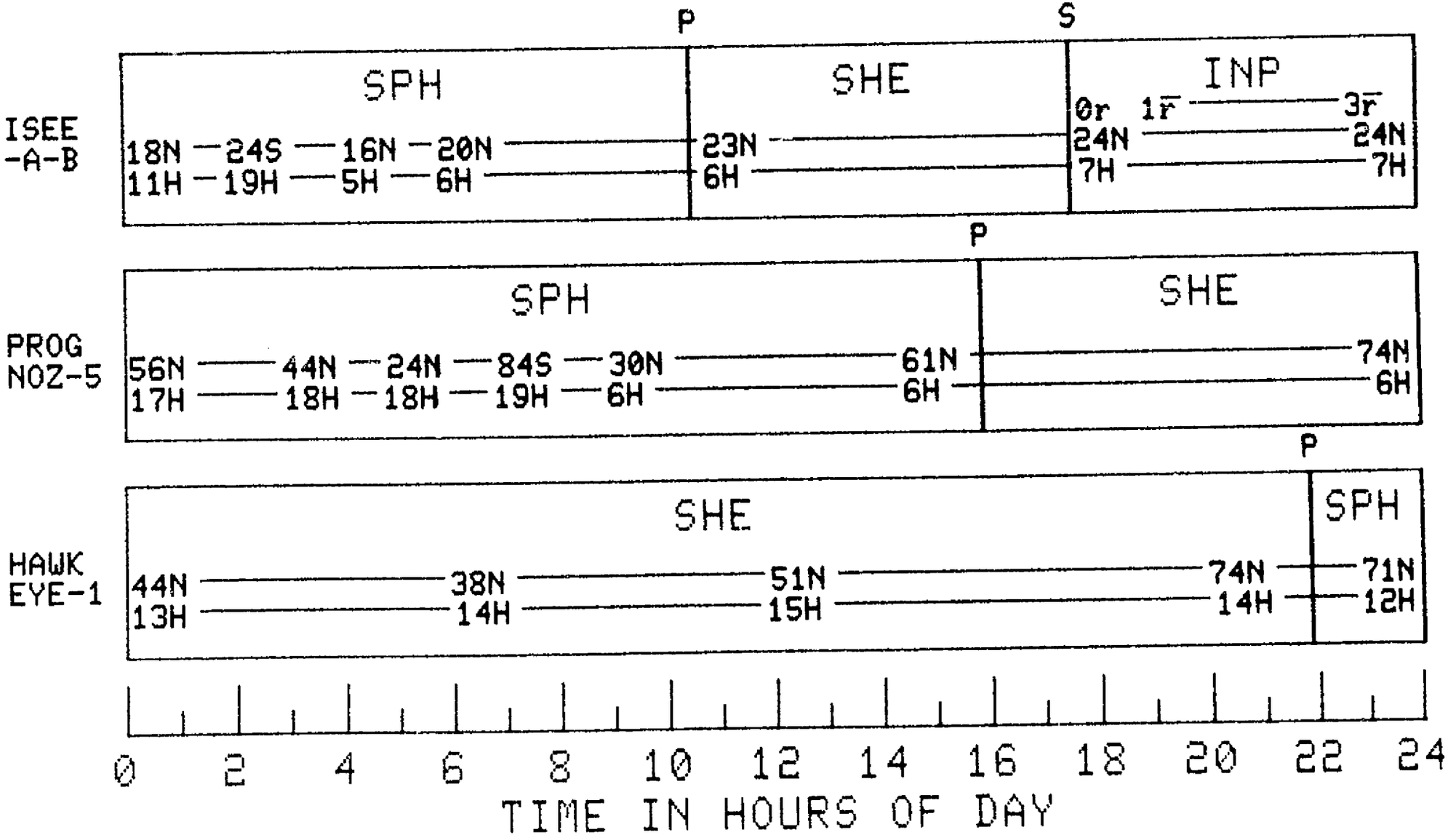
DAY 333 1977

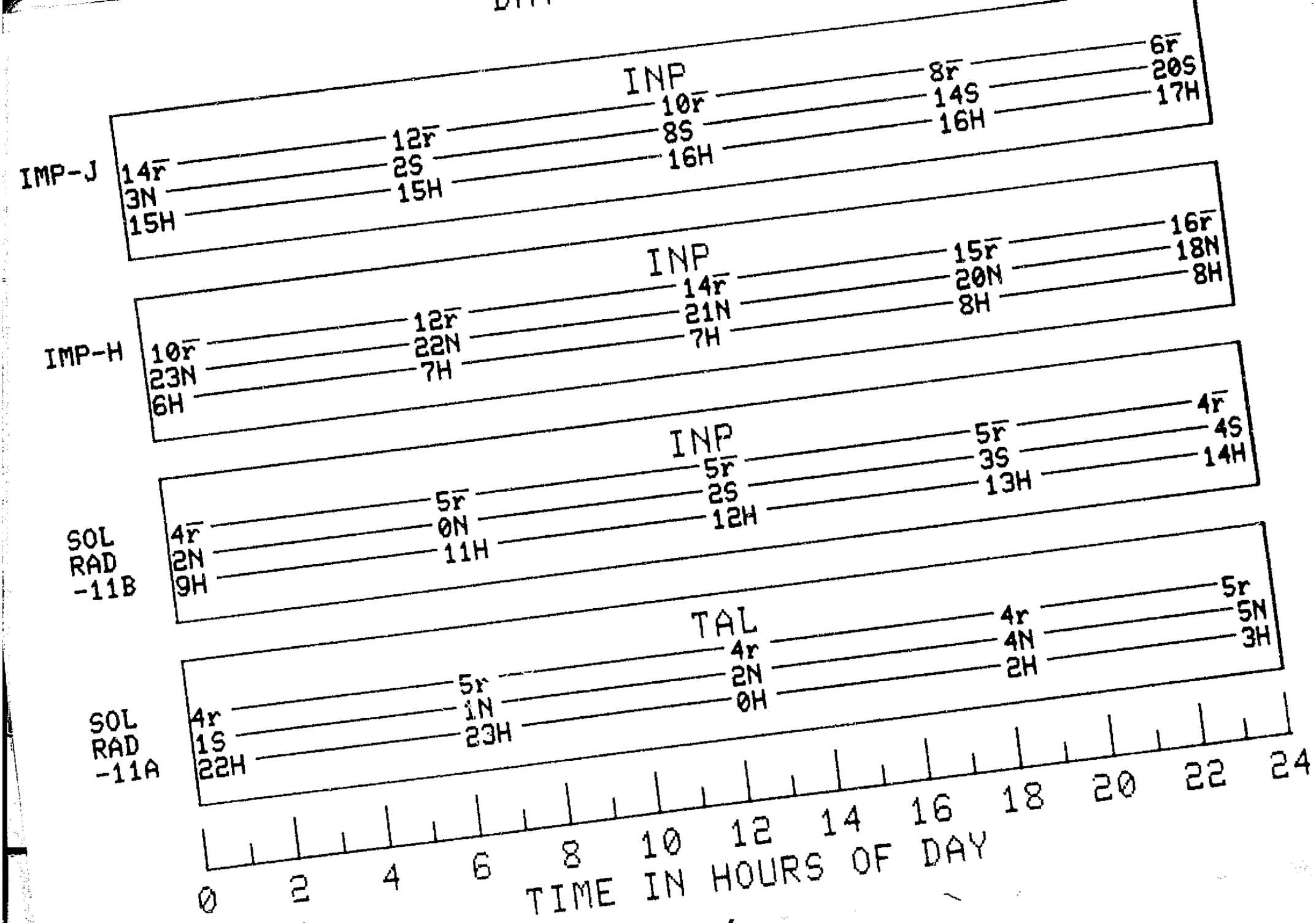

IMP-J
INP
20r̄ 19r̄ 17r̄ 16r̄ 14r̄
21N 18N 13N 8N 3N
13H 14H 14H 14H 15H
S
IMP-H
INP
0r 1r̄ 3r̄ 6r̄ 8r̄ 10r̄
22N 23N 23N 23N 23N
4H 5H 5H 6H 6H
S
SOL RAD -11B
SHE
7r
6N 5N
5H 6H
INP
0r 1r̄ 3r̄ 4r̄
5N 3N 2N
7H 8H 9H
P
SOL RAD -11A
SHE
5S
17H
SPH
4S
19H
TAL
4r̄ 3r̄ 2r̄ 1r̄ 0r 1r 2r 3r 4r
3S 1S
20H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 333 1977

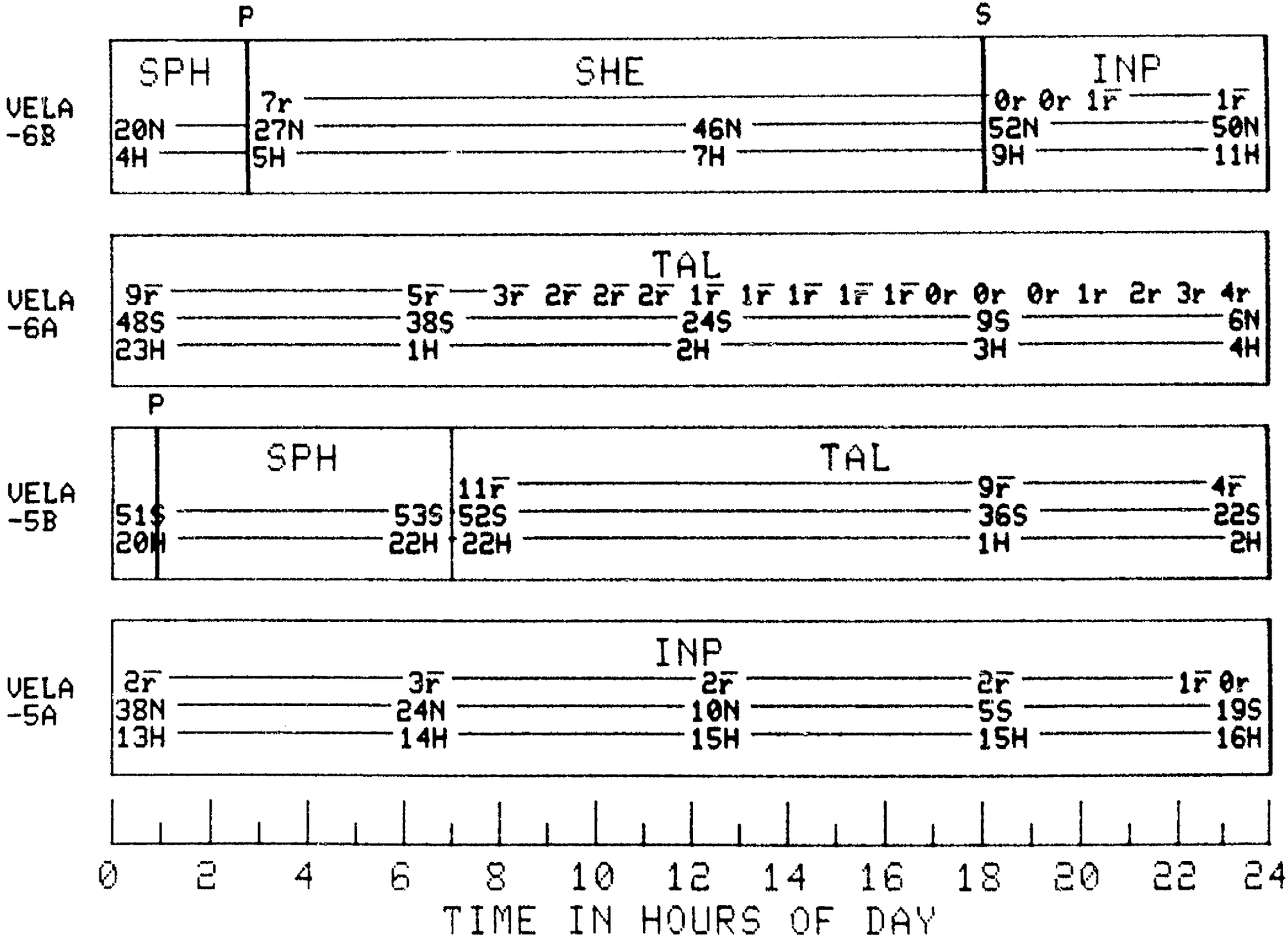

VELA -6B
TAL
7r̄ 3r̄ 2r̄ 0r 1r 2r 2r 3r 4r 5r
39S 26S 11S 4N 20N
1H 2H 3H 4H 4H
SPH
P
VELA -6A
SHE
27S 48S
17H 19H
SPH
52S
22H
TAL
12r̄ 10r̄
52S 48S
22H 23H
S
VELA -5B
INP
1r̄ 1r̄ 0r
6S 15S
15H 16H
SHE
9r
33S 44S 51S
17H 18H 20H
S
VELA -5A
SHE
6r
36N 48N
5H 7H
INP
0r 0r 1r̄ 1r̄ 2r̄
53N 49N 38N
9H 11H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 333 1977

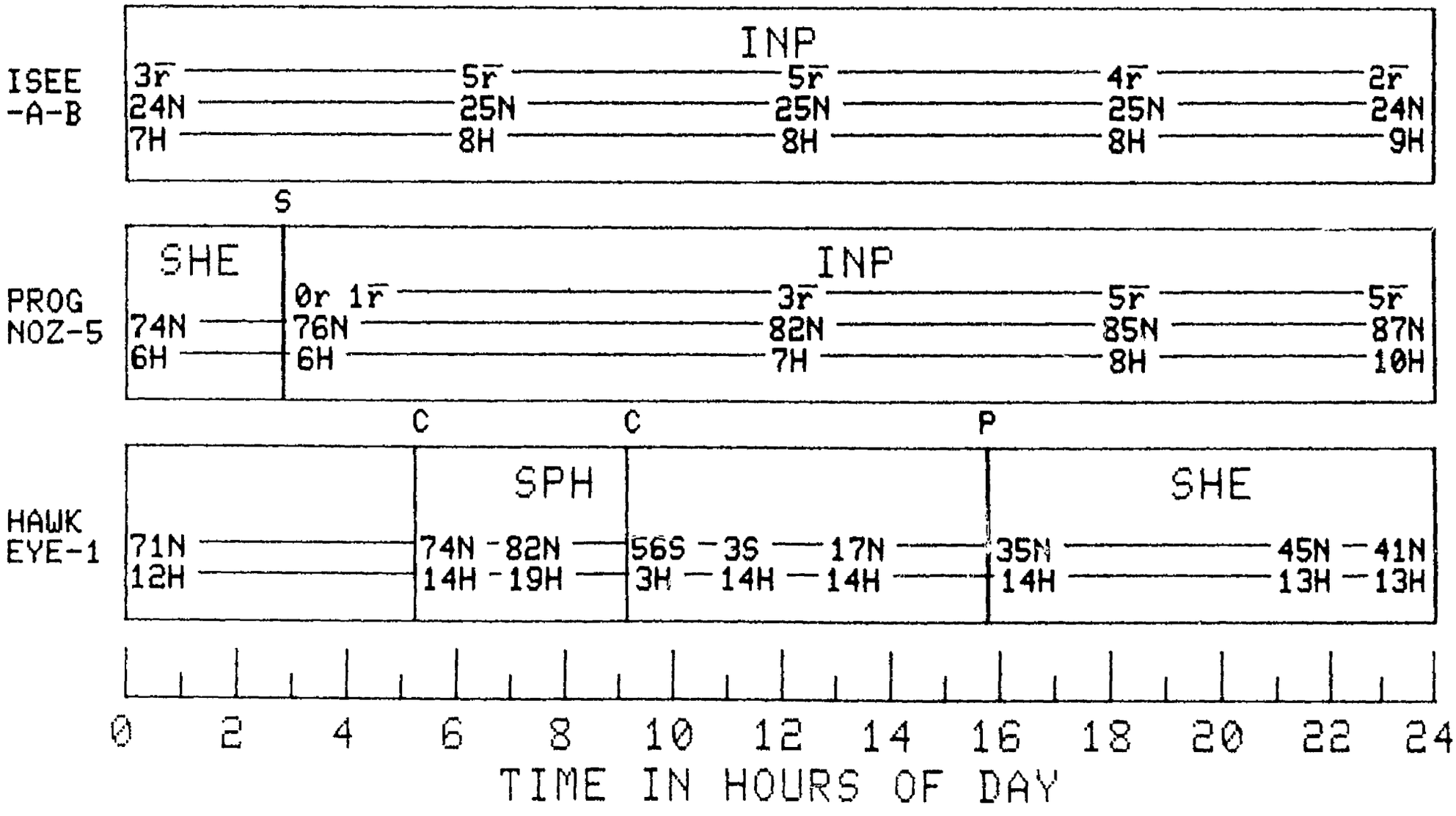

P
S
SPH
SHE
INP
ISEE
-A-B
18N 24S 16N 20N
11H 19H 5H 6H
23N
6H
0r 1r 3r
24N 24N
7H 7H
P
SPH
SHE
PROG
NOZ-5
56N 44N 24N 84S 30N
17H 18H 18H 19H 6H
61N
6H
74N
6H
P
SHE
SPH
HAWK
EYE-1
44N 38N 51N 74N
13H 14H 15H 14H
71N
12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


IMP-J
INP
14r̄
3N
15H
12r̄
2S
15H
10r̄
8S
16H
8r̄
14S
16H
6r̄
20S
17H
IMP-H
INP
10r̄
23N
6H
12r̄
22N
7H
14r̄
21N
7H
15r̄
20N
8H
16r̄
18N
8H
SOL RAD -11B
INP
4r̄
2N
9H
5r̄
0N
11H
5r̄
2S
12H
5r̄
3S
13H
4r̄
4S
14H
SOL RAD -11A
TAL
4r
1S
22H
5r
1N
23H
4r
2N
0H
4r
4N
2H
5r
5N
3H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

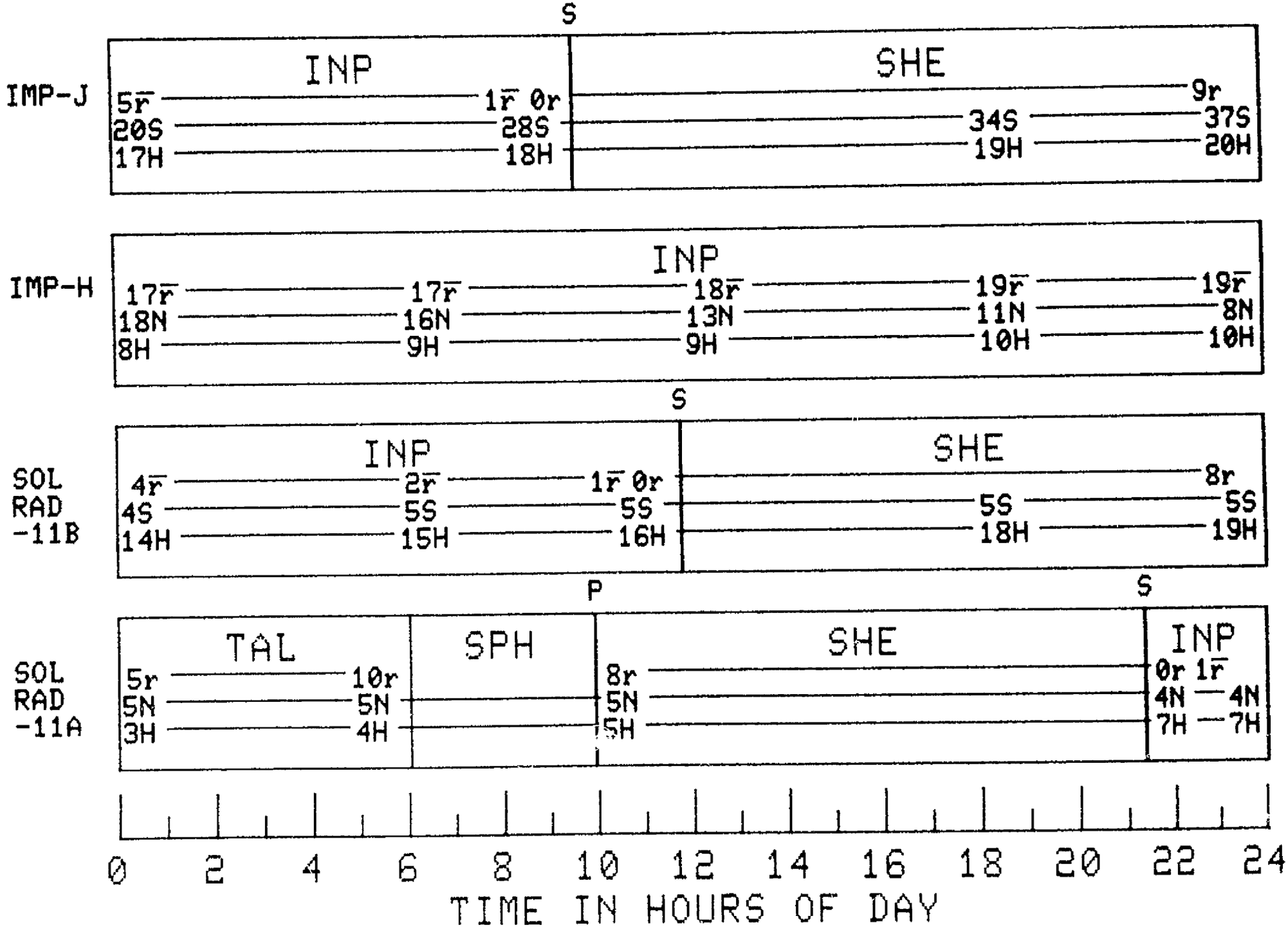
DAY 334 1977


P
S
SPH
SHE
INP
VELA -6B
7r
20N 27N 46N 52N 50N
4H 5H 7H 9H 11H
0r 0r 1r 1r
TAL
VELA -6A
9r 5r 3r 2r 2r 2r 1r 1r 1r 1r 1r 0r 0r 0r 1r 2r 3r 4r
48S 38S 24S 9S 6N
23H 1H 2H 3H 4H
P
SPH
TAL
VELA -5B
11r 9r 4r
51S 53S 52S 36S 22S
20H 22H 22H 1H 2H
INP
VELA -5A
2r 3r 2r 2r 1r 0r
38N 24N 10N 5S 19S
13H 14H 15H 15H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

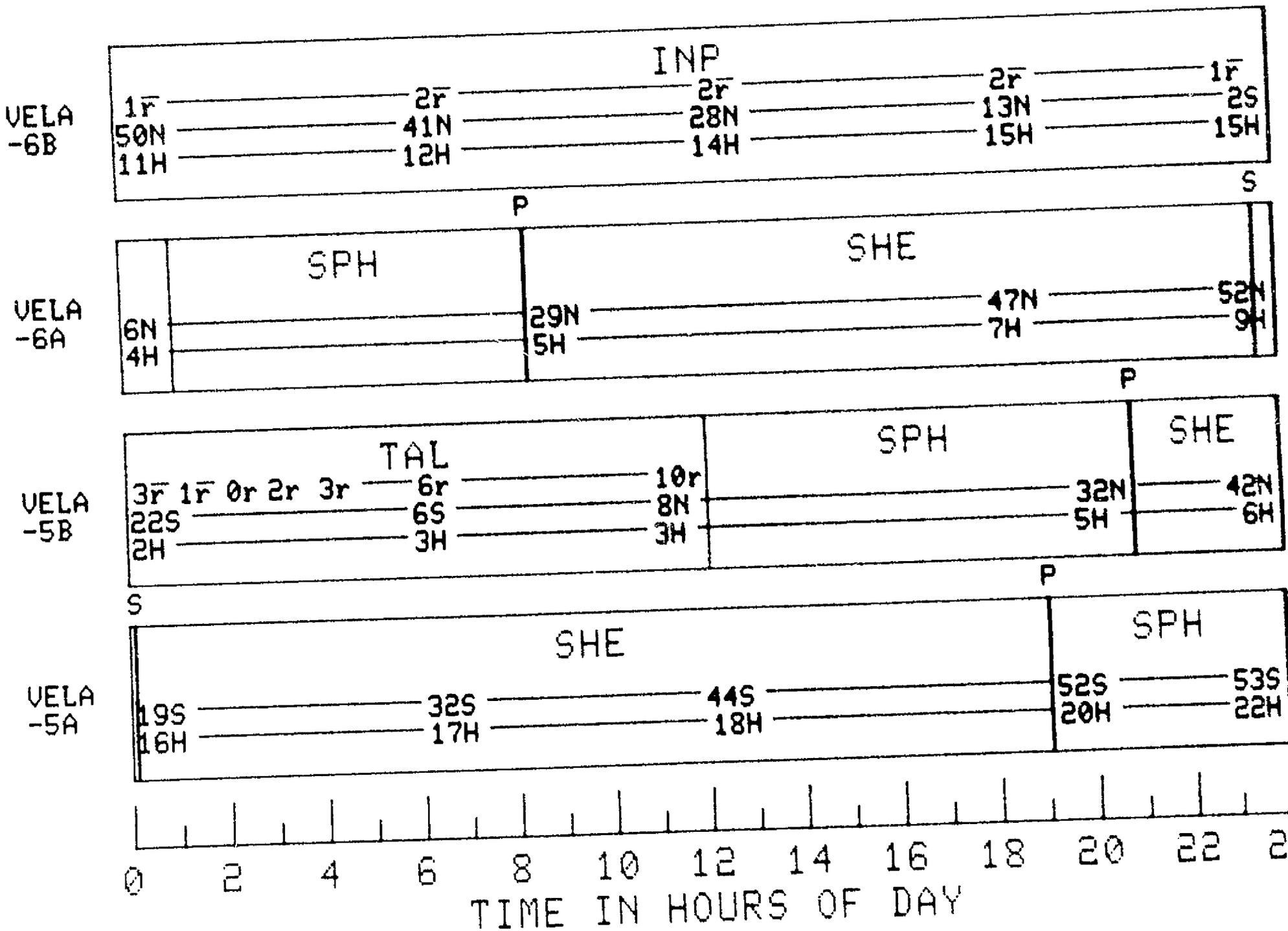
DAY 334 1977


INP
ISEE
-A-B
3r̄ 5r̄ 5r̄ 4r̄ 2r̄
24N 25N 25N 25N 24N
7H 8H 8H 8H 9H
S
SHE
INP
PROG
NOZ-5
0r 1r̄ 3r̄ 5r̄ 5r̄
74N 76N 82N 85N 87N
6H 6H 7H 8H 10H
C
C
P
SPH
SHE
HAWK
EYE-1
71N 74N 82N 56S 3S 17N 35N 45N 41N
12H 14H 19H 3H 14H 14H 14H 13H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

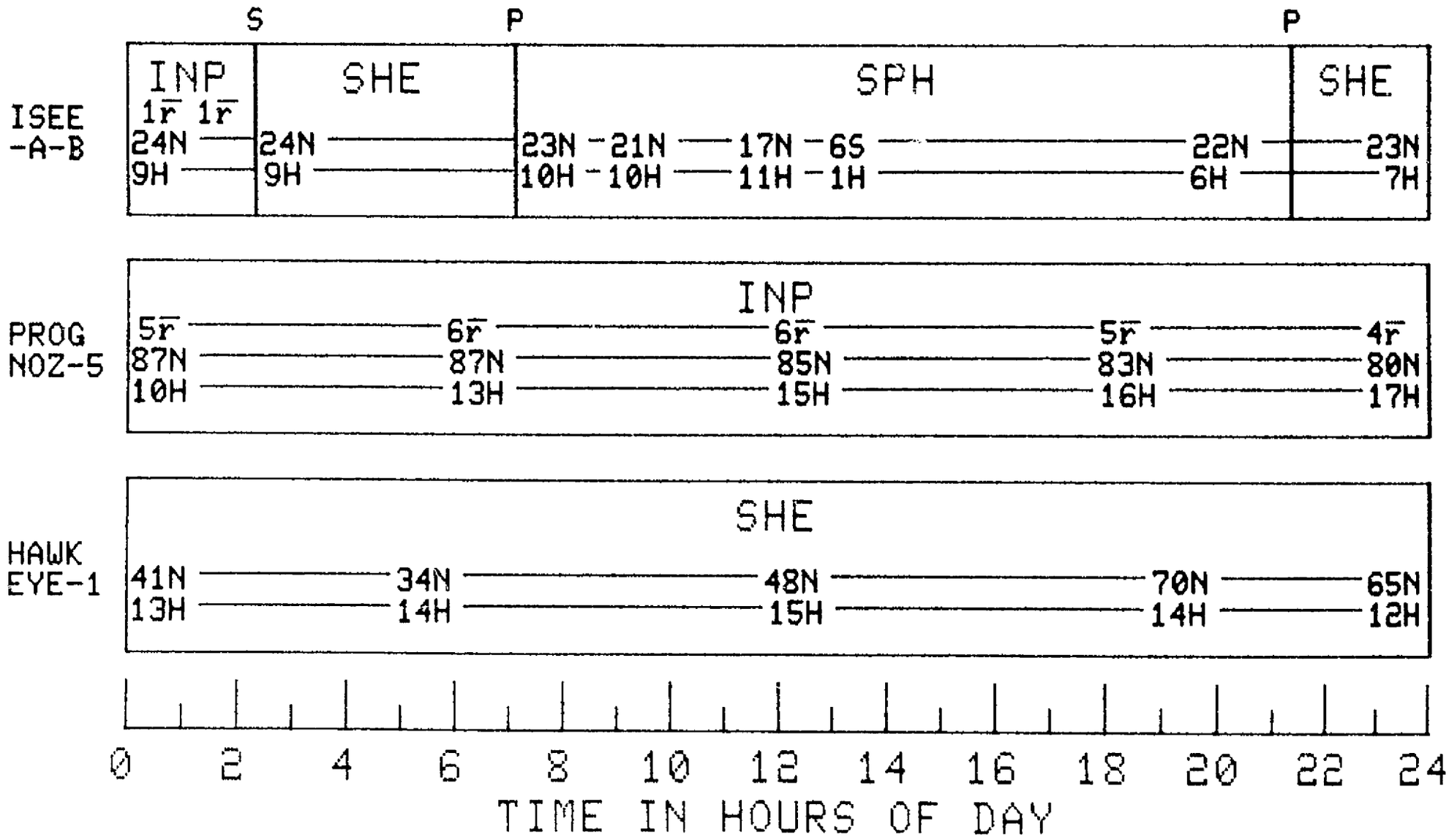
DAY 335 1977


S
IMP-J
INP
SHE
5r̄
1r̄ 0r
9r
20S
28S
34S
37S
17H
18H
19H
20H
IMP-H
INP
17r̄
17r̄
18r̄
19r̄
19r̄
18N
16N
13N
11N
8N
8H
9H
9H
10H
10H
S
SOL RAD -11B
INP
SHE
4r̄
2r̄
1r̄ 0r
8r
4S
5S
5S
5S
5S
14H
15H
16H
18H
19H
P
S
SOL RAD -11A
TAL
SPH
SHE
INP
5r
10r
8r
0r 1r̄
5N
5N
5N
4N
4N
3H
4H
5H
7H
7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

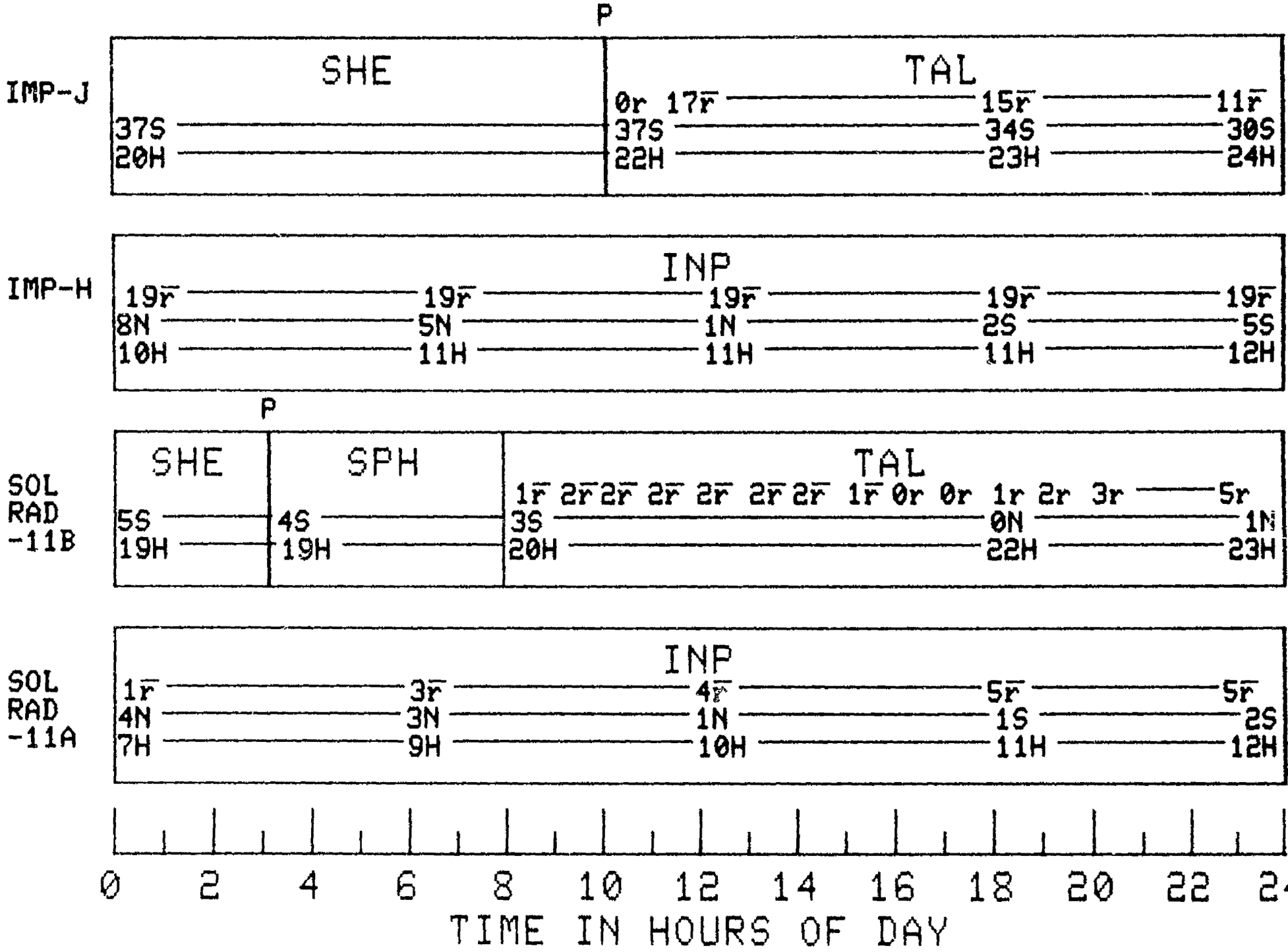
DAY 335 1977


VELA -6B
INP
1r 50N 11H
2r 41N 12H
2r 28N 14H
2r 13N 15H
1r 2S 15H
VELA -6A
P
S
SPH
6N 4H
29N 5H
SHE
47N 7H
52N 9H
VELA -5B
P
TAL
3r 1r 0r 2r 3r 22S 2H
6r 6S 3H
10r 8N 3H
SPH
32N 5H
SHE
42N 6H
VELA -5A
P
S
SHE
19S 16H
32S 17H
44S 18H
SPH
52S 20H
53S 22H
0 2 4 6 8 10 12 14 16 18 20 22 2
TIME IN HOURS OF DAY

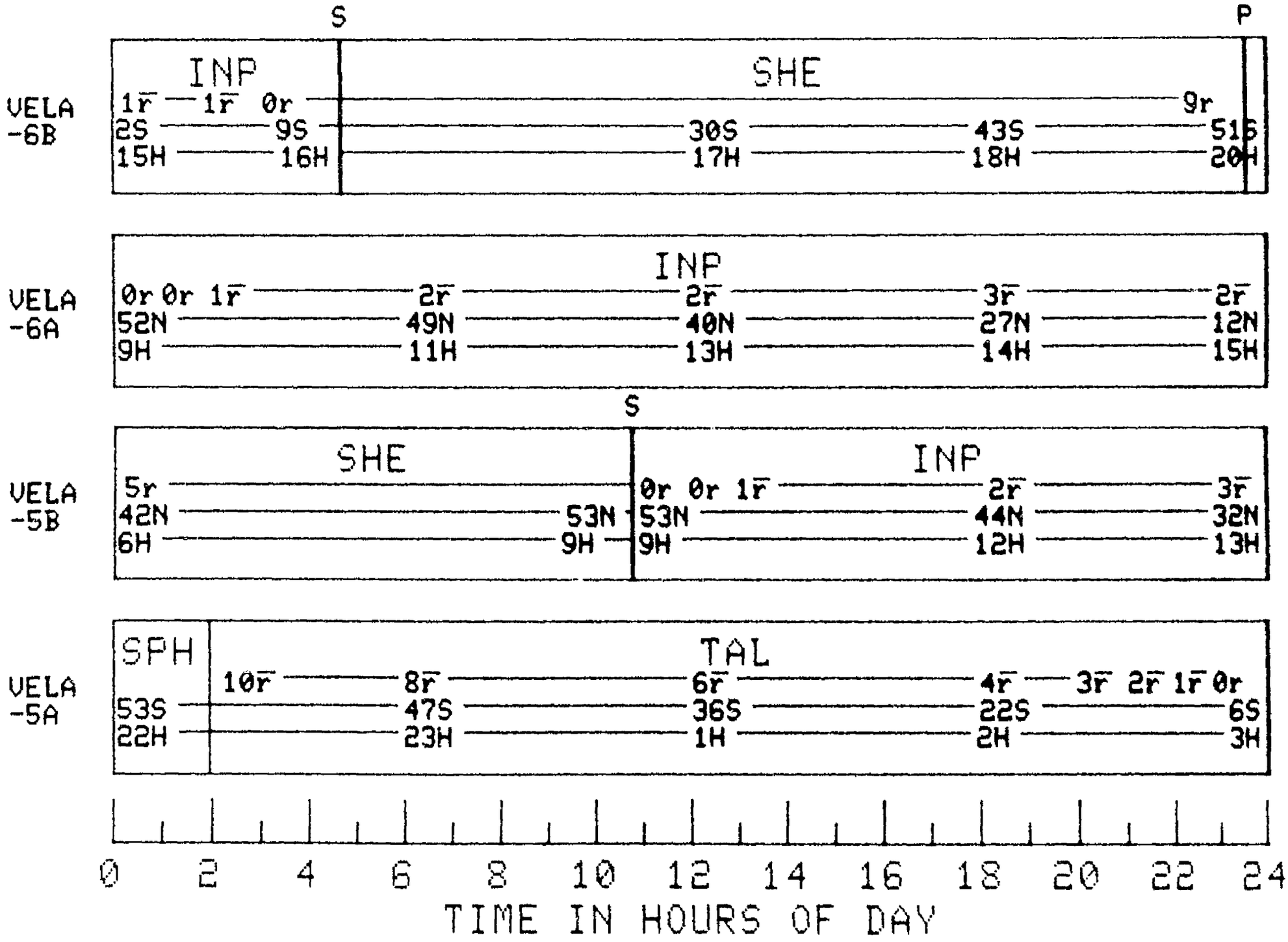
DAY 335 1977


S
P
P
ISEE
-A-B
INP
SHE
SPH
SHE
1r̄ 1r̄
24N
9H
24N
9H
23N 21N 17N 6S
10H 10H 11H 1H
22N
6H
23N
7H
PROG
NOZ-5
INP
5r̄ 6r̄ 6r̄ 5r̄ 4r̄
87N 87N 85N 83N 80N
10H 13H 15H 16H 17H
HAWK
EYE-1
SHE
41N 34N 48N 70N 65N
13H 14H 15H 14H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

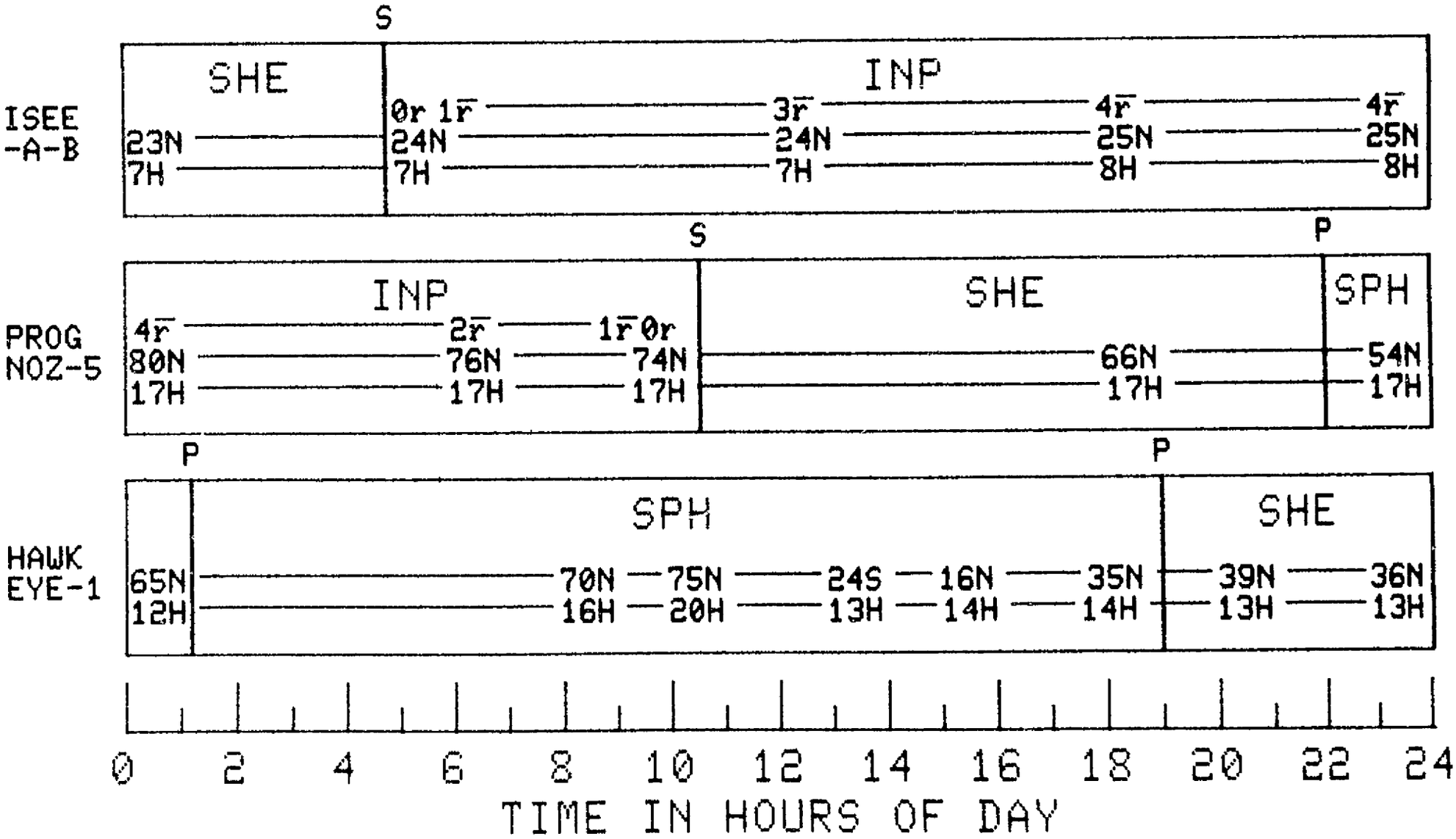
DAY 336 1977


P
IMP-J
SHE
TAL
0r 17r 15r 11r
37S 37S 34S 30S
20H 22H 23H 24H
IMP-H
INP
19r 19r 19r 19r 19r
8N 5N 1N 2S 5S
10H 11H 11H 11H 12H
P
SOL RAD -11B
SHE
SPH
TAL
1r 2r 2r 2r 2r 2r 2r 1r 0r 0r 1r 2r 3r 5r
5S 4S 3S 0N 1N
19H 19H 20H 22H 23H
SOL RAD -11A
INP
1r 3r 4r 5r 5r
4N 3N 1N 1S 2S
7H 9H 10H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

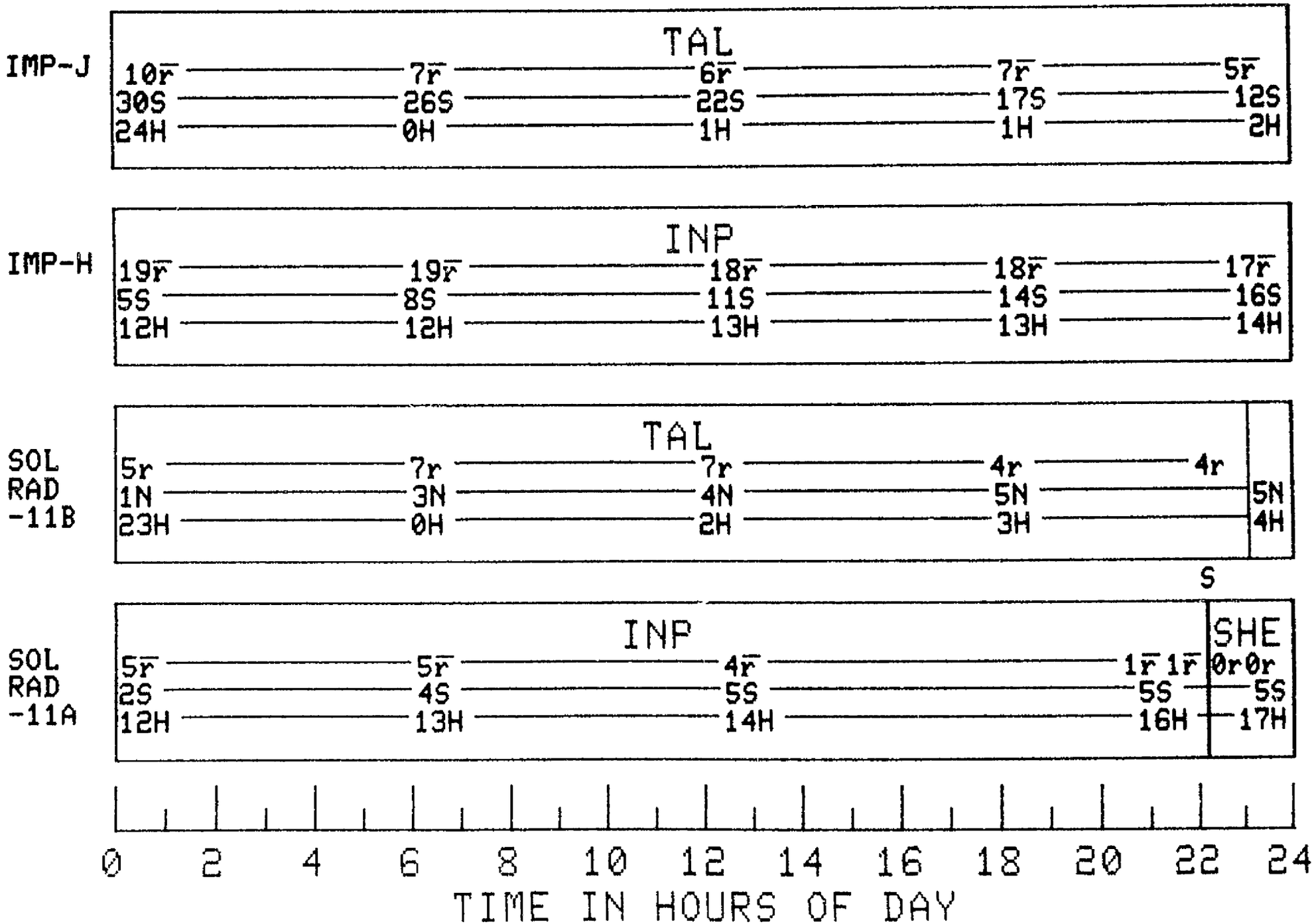
DAY 336 1977


S
P
VELA -6B
INP
SHE
1r 1r 0r
9r
2S 9S
30S 43S 51S
15H 16H
17H 18H 20H
VELA -6A
INP
0r 0r 1r 2r 2r 3r 2r
52N 49N 40N 27N 12N
9H 11H 13H 14H 15H
S
VELA -5B
SHE
INP
5r
0r 0r 1r 2r 3r
42N 53N
53N 44N 32N
6H 9H
9H 12H 13H
VELA -5A
SPH
TAL
10r 8r 6r 4r 3r 2r 1r 0r
53S 47S 36S 22S 6S
22H 23H 1H 2H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

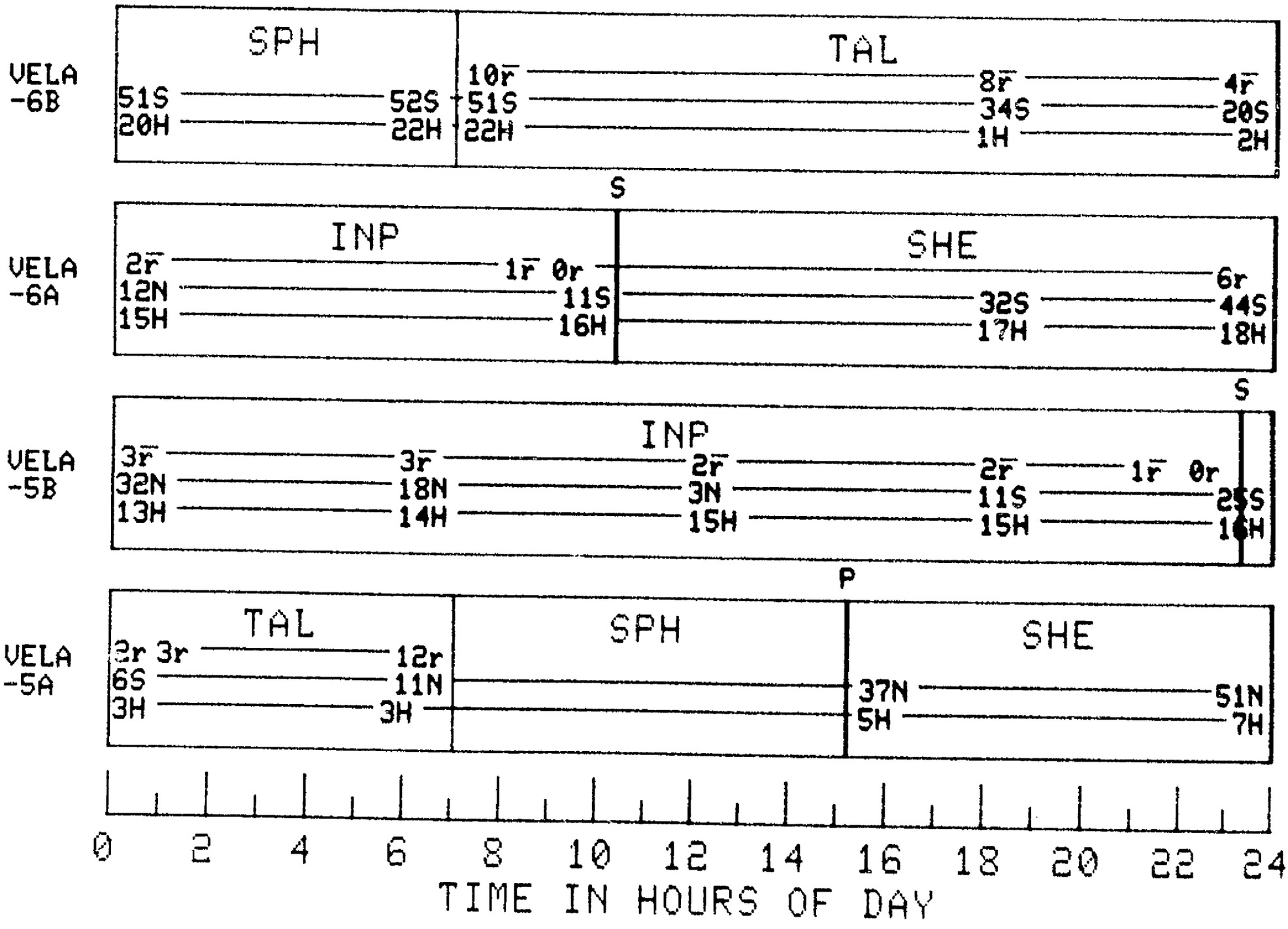
DAY 336 1977


S
SHE
INP
ISEE
-A-B
23N
7H
0r 1r
24N
7H
3r
24N
7H
4r
25N
8H
4r
25N
8H
S
P
INP
SHE
SPH
PROG
NOZ-5
4r
80N
17H
2r
76N
17H
1r 0r
74N
17H
66N
17H
54N
17H
P
P
SPH
SHE
HAWK
EYE-1
65N
12H
70N
16H
75N
20H
24S
13H
16N
14H
35N
14H
39N
13H
36N
13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

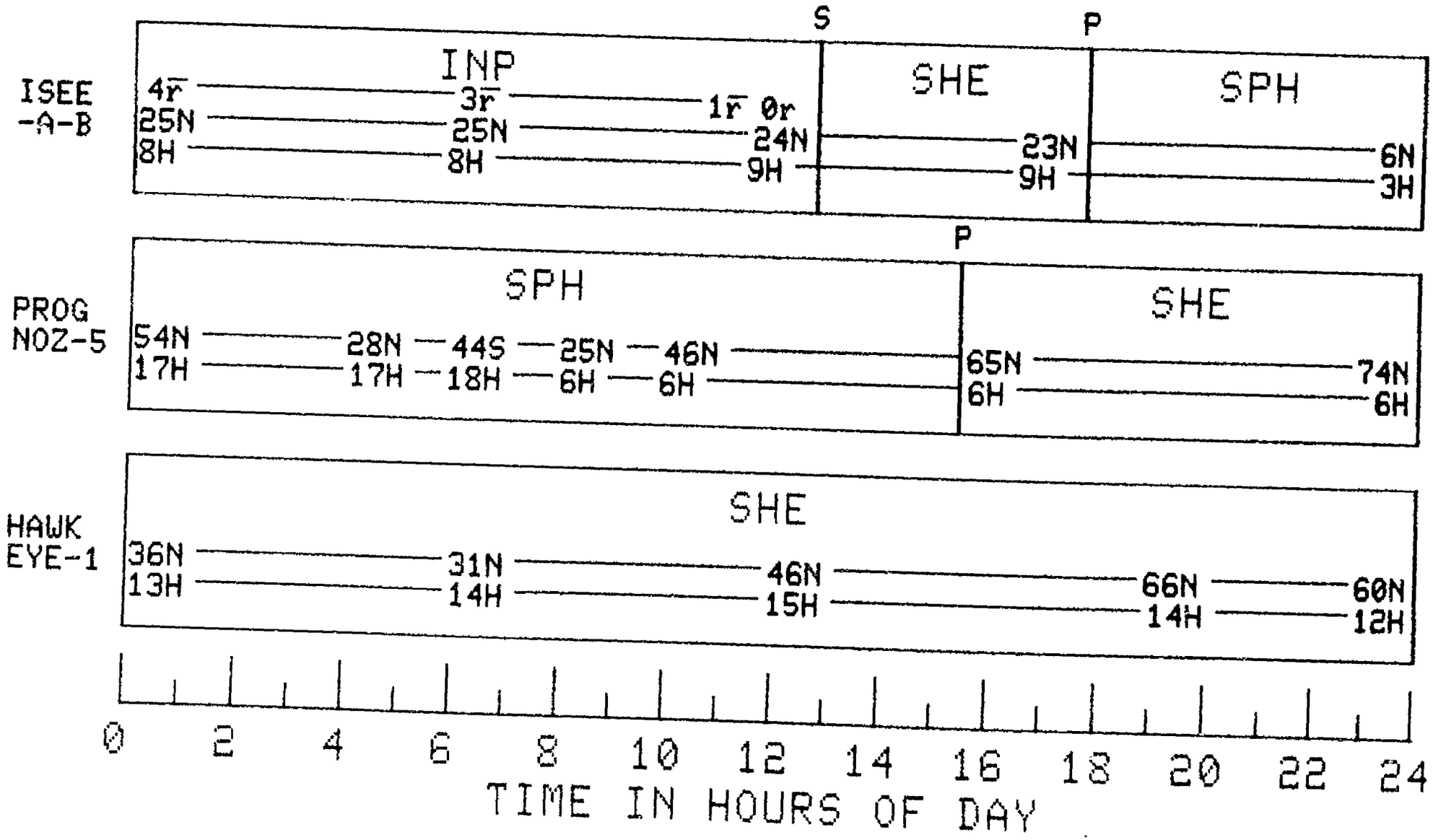
DAY 337 1977

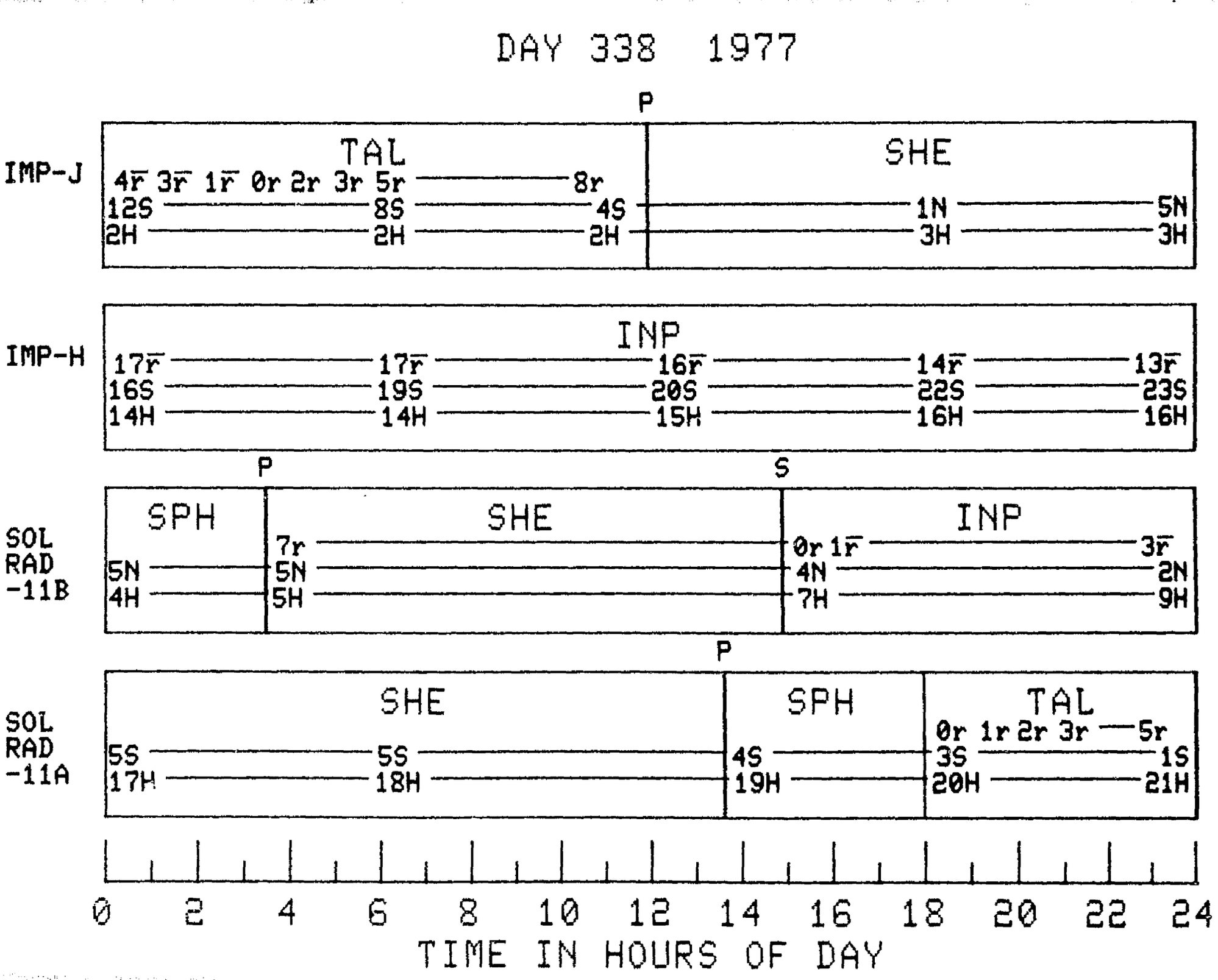

IMP-J
TAL
10r 7r 6r 7r 5r
30S 26S 22S 17S 12S
24H 0H 1H 1H 2H
IMP-H
INP
19r 19r 18r 18r 17r
5S 8S 11S 14S 16S
12H 12H 13H 13H 14H
SOL RAD -11B
TAL
5r 7r 7r 4r 4r 5N
1N 3N 4N 5N 4H
23H 0H 2H 3H
S
SOL RAD -11A
INP
SHE
5r 5r 4r 1r 1r 0r 0r
2S 4S 5S 5S 5S
12H 13H 14H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 337 1977

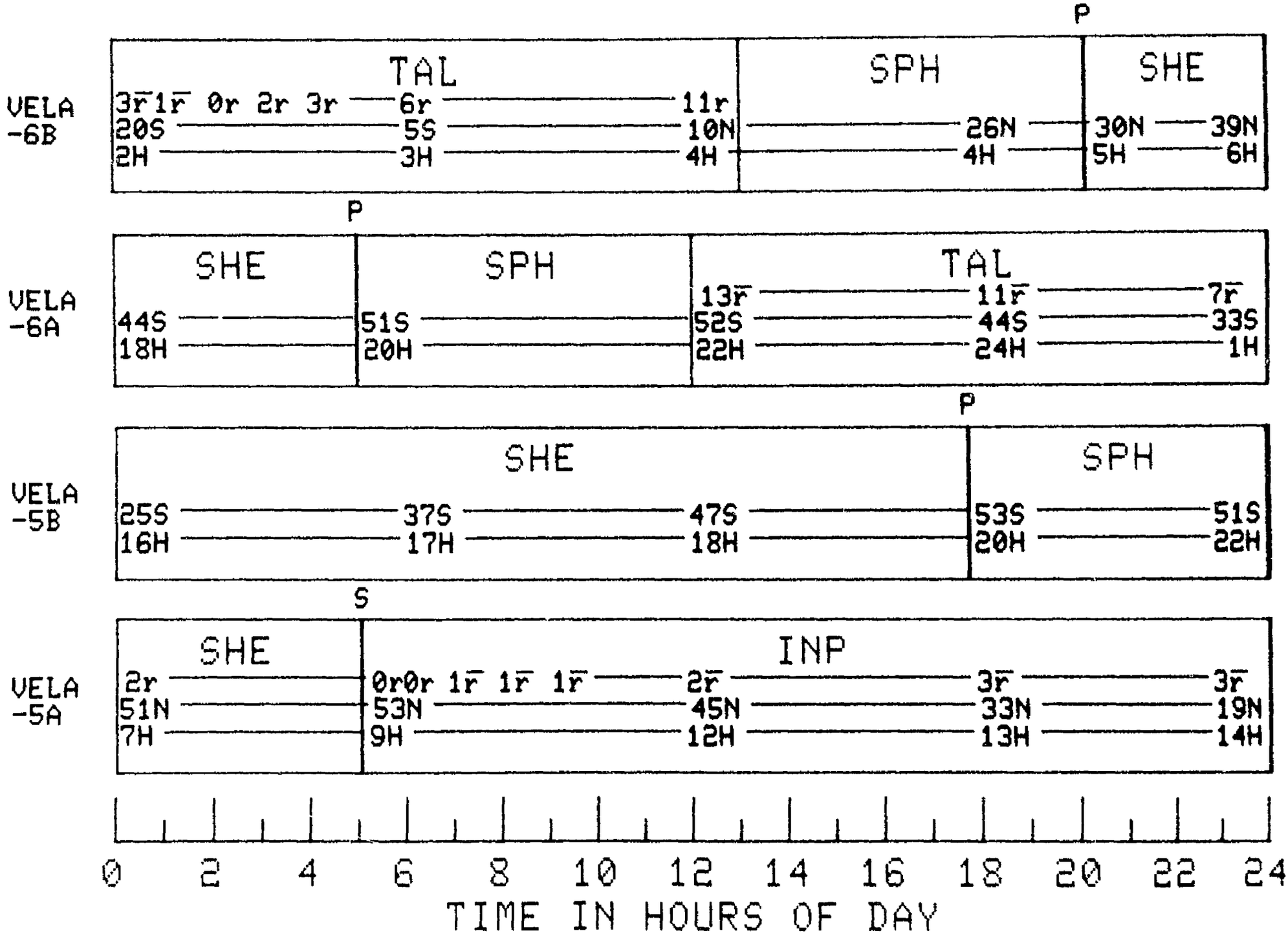

VELA -6B
SPH
51S
20H
52S
22H
TAL
10r̄
51S
22H
8r̄
34S
1H
4r̄
20S
2H
S
VELA -6A
INP
2r̄
12N
15H
1r̄ 0r
11S
16H
SHE
32S
17H
6r
44S
18H
S
VELA -5B
INP
3r̄
32N
13H
3r̄
18N
14H
2r̄
3N
15H
2r̄
11S
15H
1r̄ 0r
25S
16H
P
VELA -5A
TAL
2r 3r
6S
3H
12r
11N
3H
SPH
SHE
37N
5H
51N
7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 337 1977

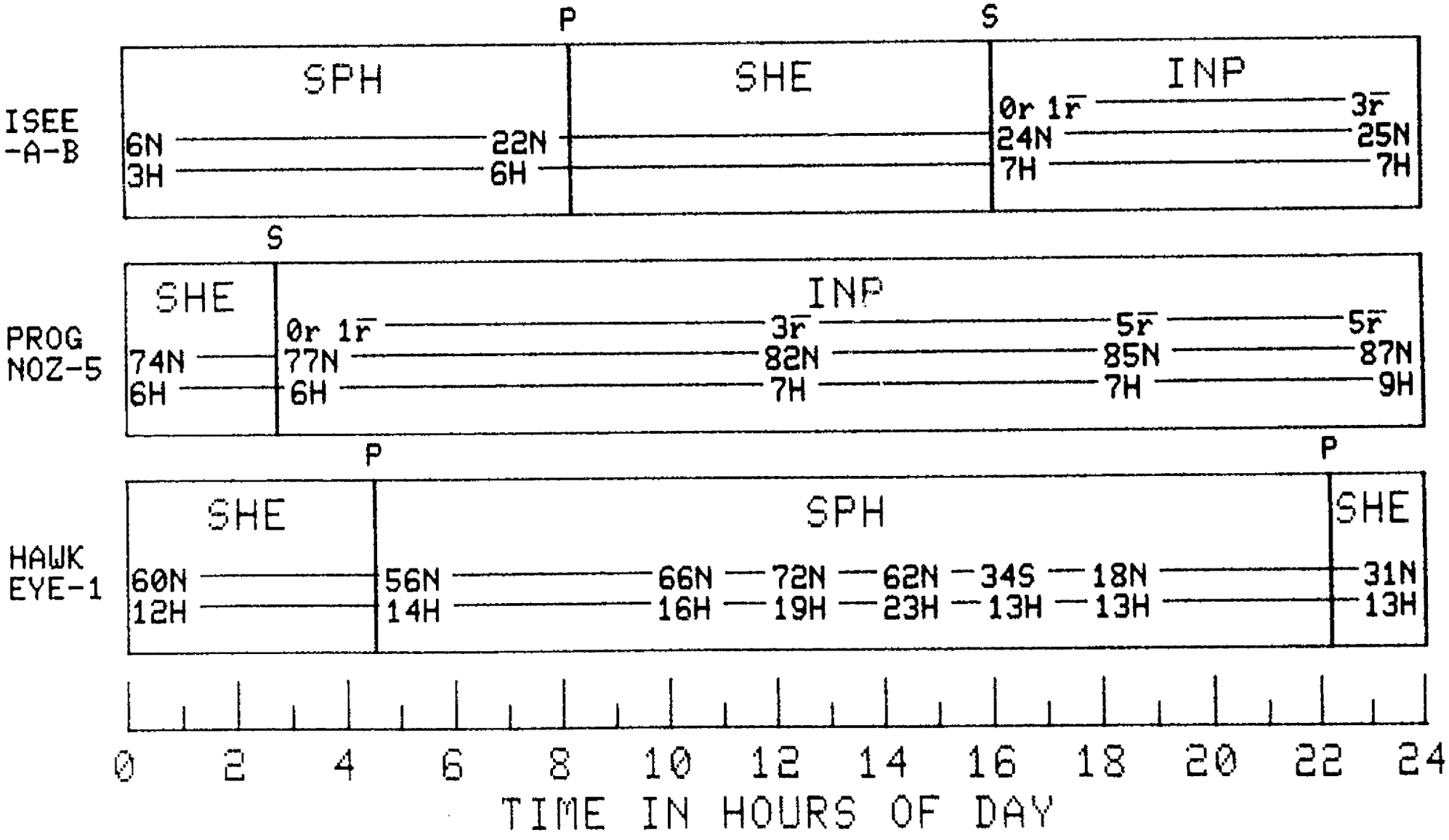

S
P
INP
SHE
SPH
ISEE
-A-B
4r̄
3r̄
1r̄ 0r
25N
25N
24N
23N
6N
8H
8H
9H
9H
3H
P
SPH
SHE
PROG
NOZ-5
54N
28N
44S
25N
46N
65N
74N
17H
17H
18H
6H
6H
6H
6H
SHE
HAWK
EYE-1
36N
31N
46N
66N
60N
13H
14H
15H
14H
12H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY


DAY 338 1977
P
IMP-J
TAL
4r̄ 3r̄ 1r̄ 0r 2r 3r 5r 8r
12S 8S 4S
2H 2H 2H
SHE
1N 5N
3H 3H
IMP-H
INP
17r̄ 17r̄ 16r̄ 14r̄ 13r̄
16S 19S 20S 22S 23S
14H 14H 15H 16H 16H
P
S
SOL RAD -11B
SPH
5N
4H
SHE
7r
5N
5H
INP
0r 1r̄ 3r̄
4N 2N
7H 9H
P
SOL RAD -11A
SHE
5S 5S
17H 18H
SPH
4S
19H
TAL
0r 1r 2r 3r 5r
3S 1S
20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

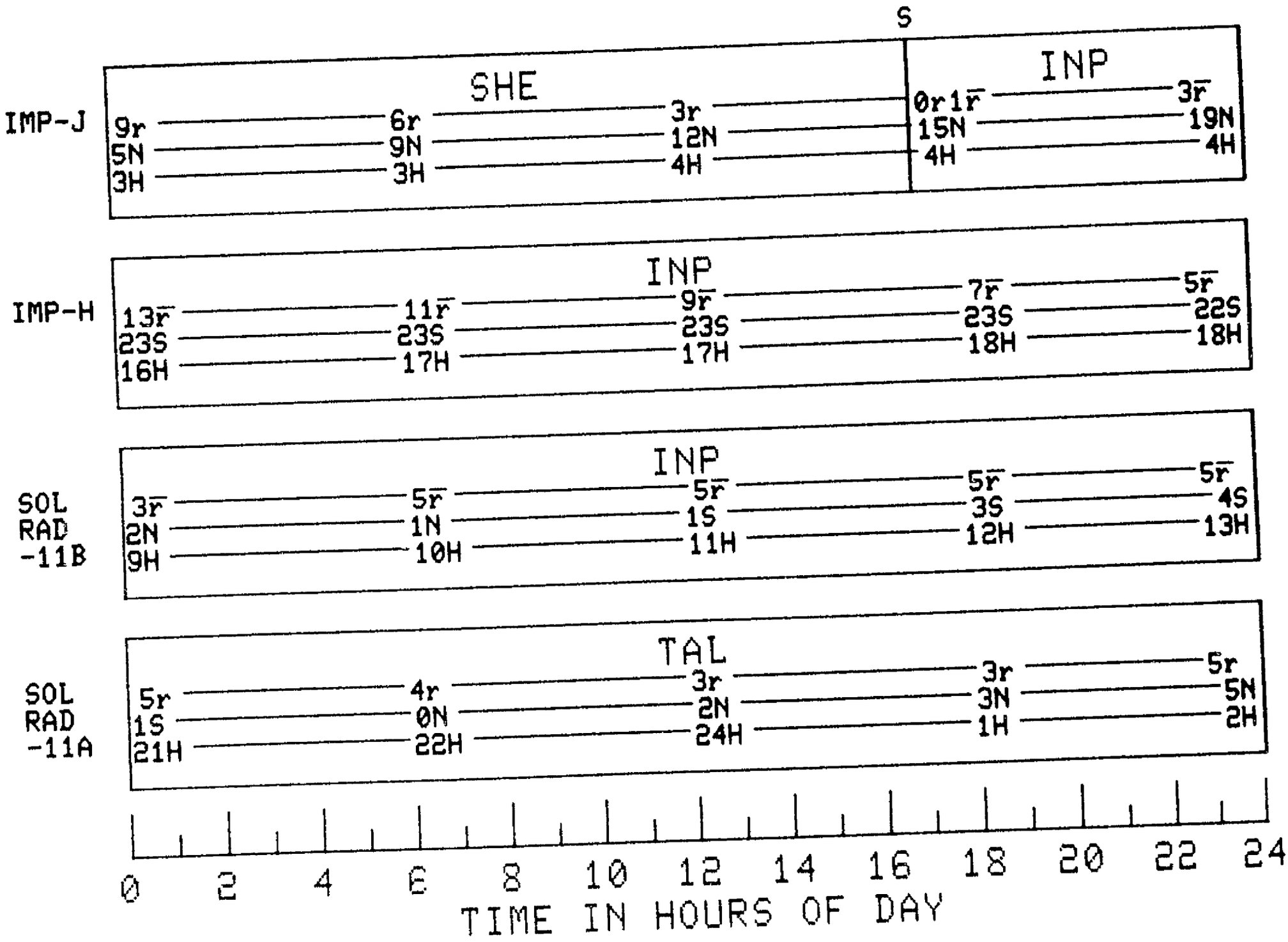
DAY 338 1977


VELA -6B
TAL
SPH
SHE
P
3r̄ 1r̄ 0r 2r 3r
6r
11r
26N
30N
39N
20S
5S
10N
4H
5H
6H
2H
3H
4H
VELA -6A
SHE
SPH
TAL
P
44S
51S
13r̄
11r̄
7r̄
52S
44S
33S
18H
20H
22H
24H
1H
VELA -5B
SHE
SPH
P
25S
37S
47S
53S
51S
16H
17H
18H
20H
22H
VELA -5A
SHE
INP
S
2r
0r0r 1r̄ 1r̄ 1r̄
2r̄
3r̄
3r̄
51N
53N
45N
33N
19N
7H
9H
12H
13H
14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

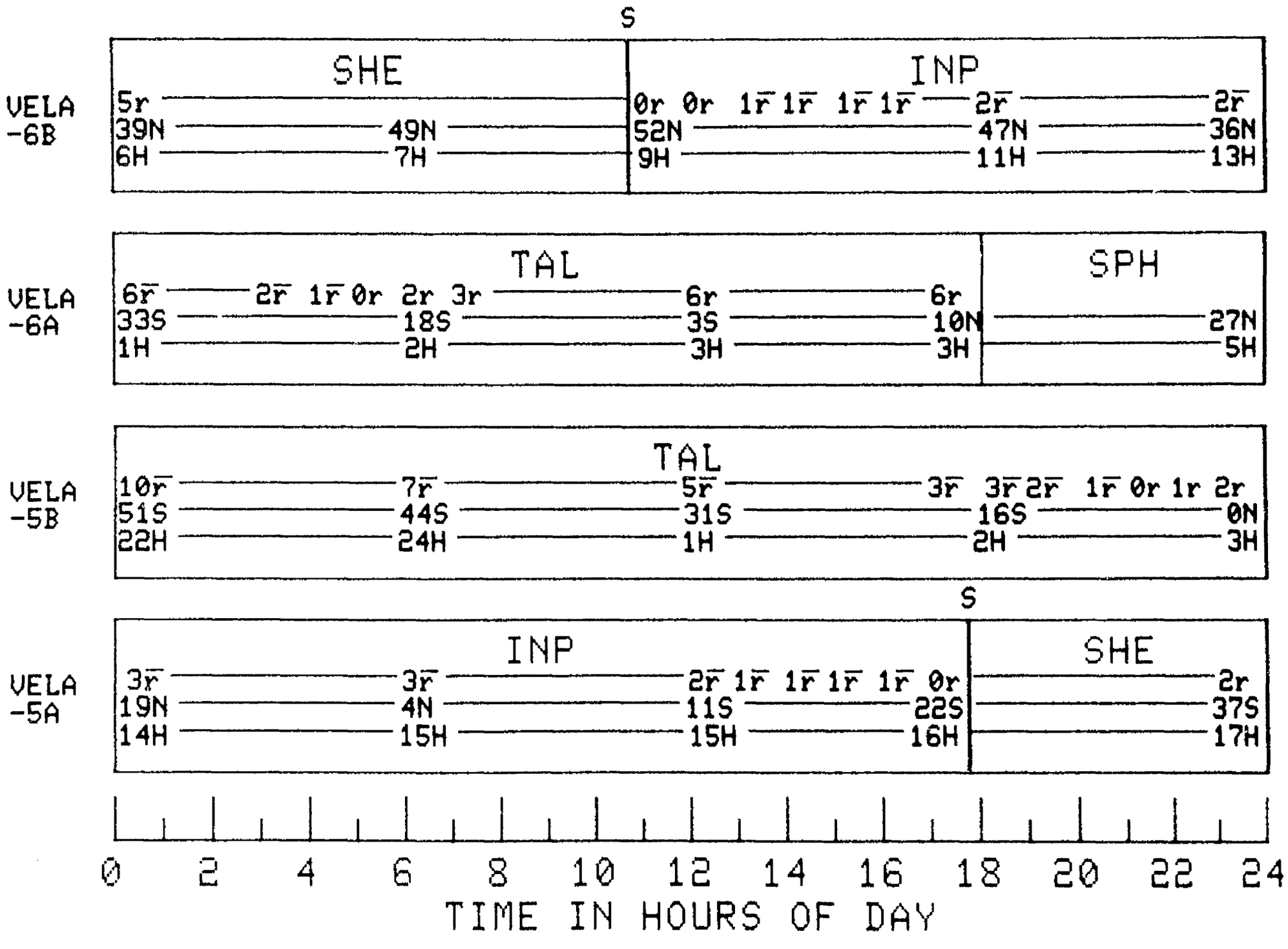
DAY 338 1977


P
S
SPH
SHE
INP
ISEE
-A-B
6N
3H
22N
6H
0r 1r̄
24N
7H
3r̄
25N
7H
S
SHE
INP
PROG
NOZ-5
74N
6H
0r 1r̄
77N
6H
3r̄
82N
7H
5r̄
85N
7H
5r̄
87N
9H
P
P
SHE
SPH
SHE
HAWK
EYE-1
60N
12H
56N
14H
66N
16H
72N
19H
62N
23H
34S
13H
18N
13H
31N
13H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

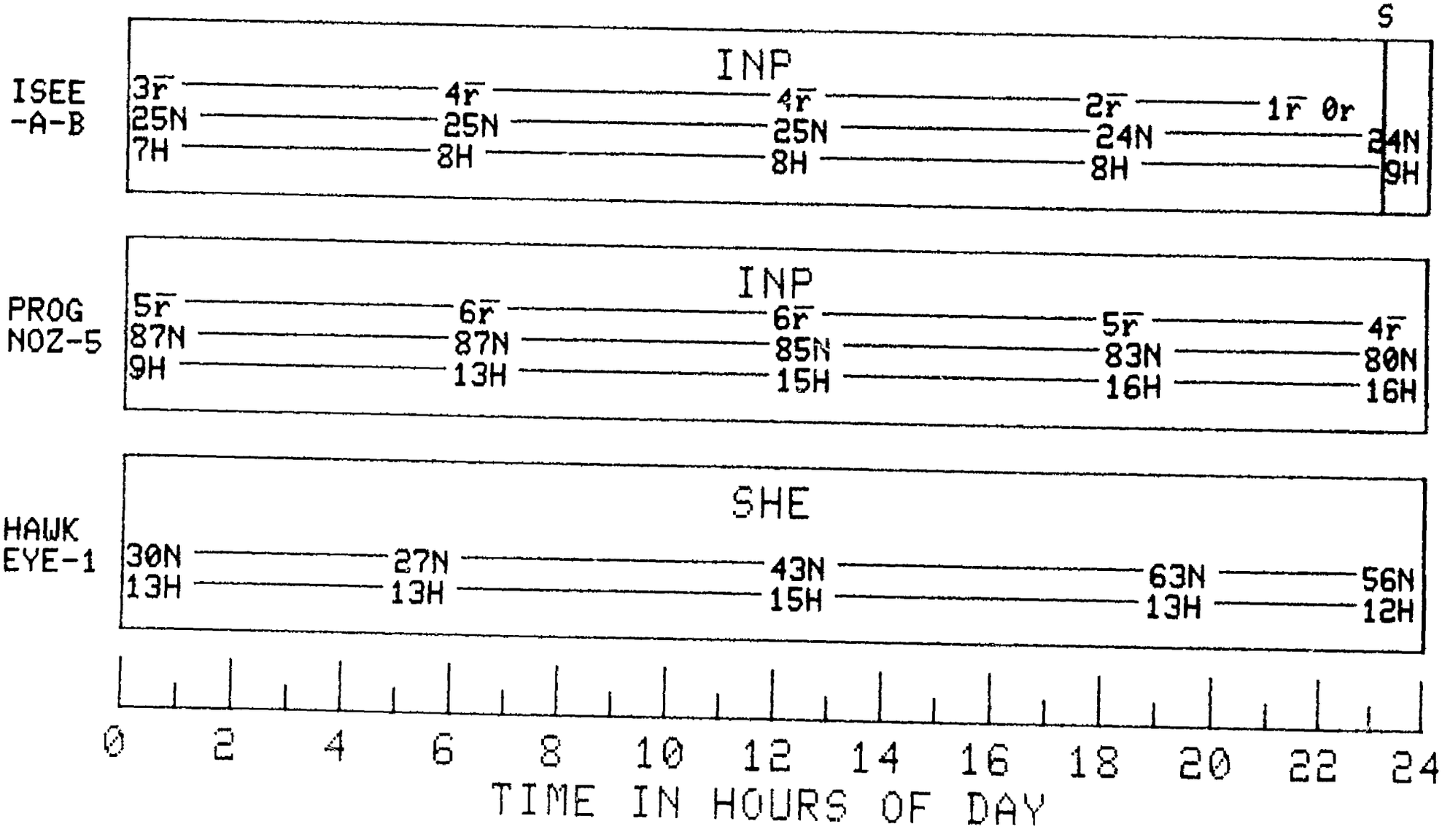
DAY 339 1977


S
IMP-J
SHE
9r 6r 3r
5N 9N 12N
3H 3H 4H
INP
0r 1r̄ 3r̄
15N 19N
4H 4H
IMP-H
INP
13r̄ 11r̄ 9r̄ 7r̄ 5r̄
23S 23S 23S 23S 22S
16H 17H 17H 18H 18H
SOL RAD -11B
INP
3r̄ 5r̄ 5r̄ 5r̄ 5r̄
2N 1N 1S 3S 4S
9H 10H 11H 12H 13H
SOL RAD -11A
TAL
5r 4r 3r 3r 5r
1S 0N 2N 3N 5N
21H 22H 24H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

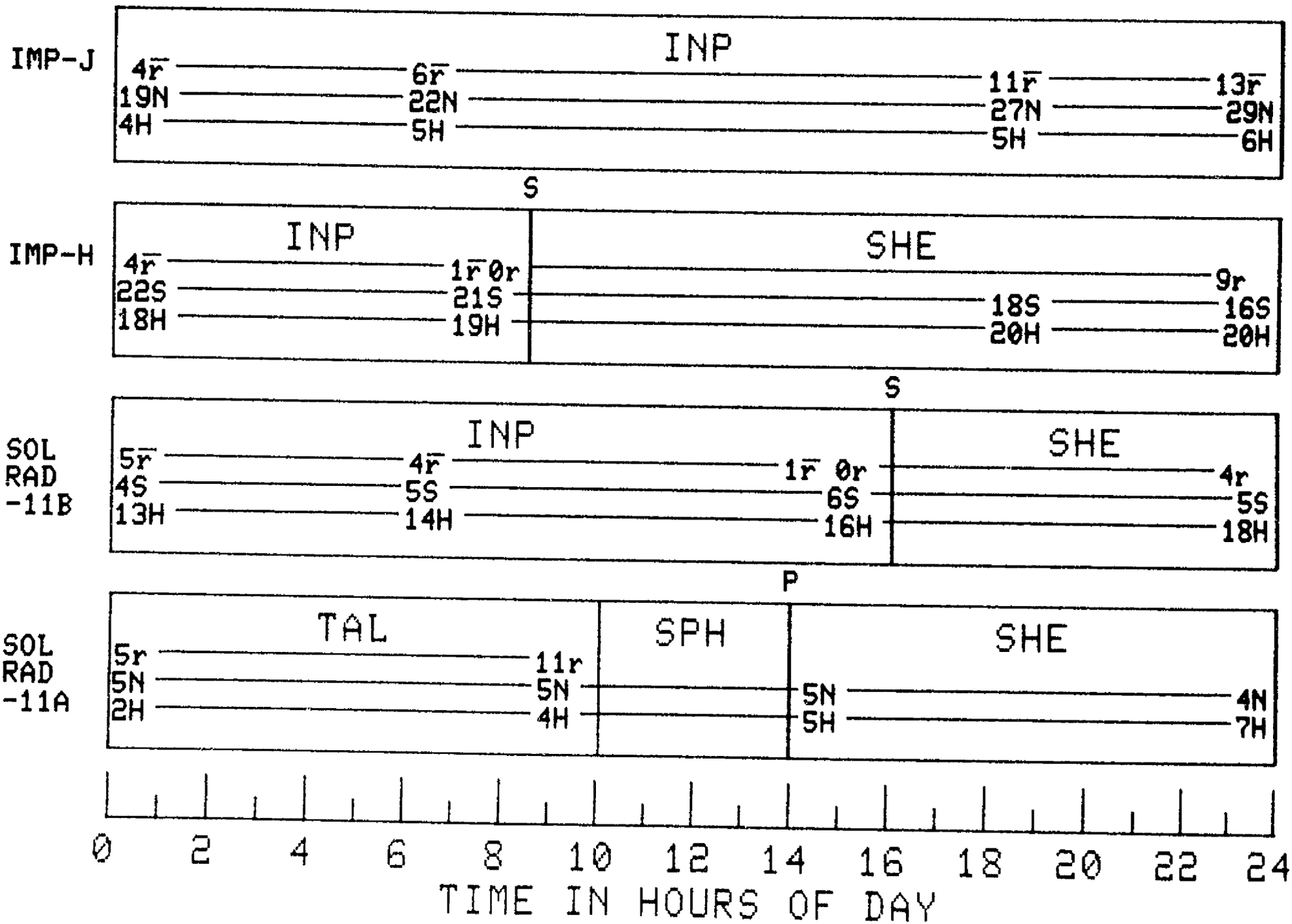
DAY 339 1977


S
SHE
INP
VELA -6B
5r
39N 49N
6H 7H
0r 0r 1r̄ 1r̄ 1r̄ 1r̄ 2r̄ 2r̄
52N 47N 36N
9H 11H 13H
TAL
SPH
VELA -6A
6r̄ 2r̄ 1r̄ 0r 2r 3r 6r 6r
33S 18S 3S 10N 27N
1H 2H 3H 3H 5H
TAL
VELA -5B
10r̄ 7r̄ 5r̄ 3r̄ 3r̄ 2r̄ 1r̄ 0r 1r 2r
51S 44S 31S 16S 0N
22H 24H 1H 2H 3H
S
INP
SHE
VELA -5A
3r̄ 3r̄ 2r̄ 1r̄ 1r̄ 1r̄ 1r̄ 0r 2r
19N 4N 11S 22S 37S
14H 15H 15H 16H 17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

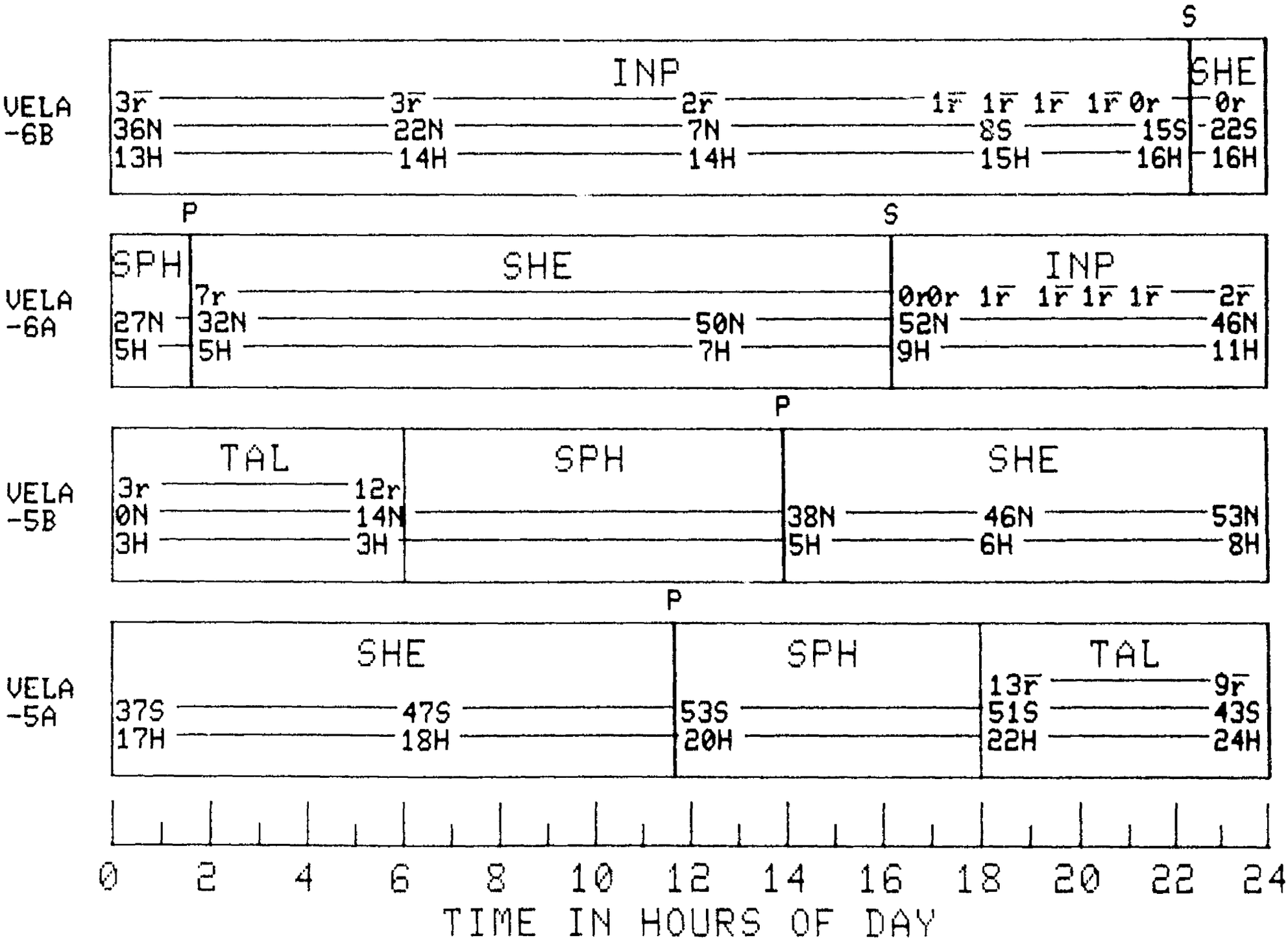
DAY 339 1977


S
INP
ISEE
-A-B
3r
4r
4r
2r
1r 0r
25N
25N
25N
24N
24N
7H
8H
8H
8H
9H
INP
PROG
NOZ-5
5r
6r
6r
5r
4r
87N
87N
85N
83N
80N
9H
13H
15H
16H
16H
SHE
HAWK
EYE-1
30N
27N
43N
63N
56N
13H
13H
15H
13H
12H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

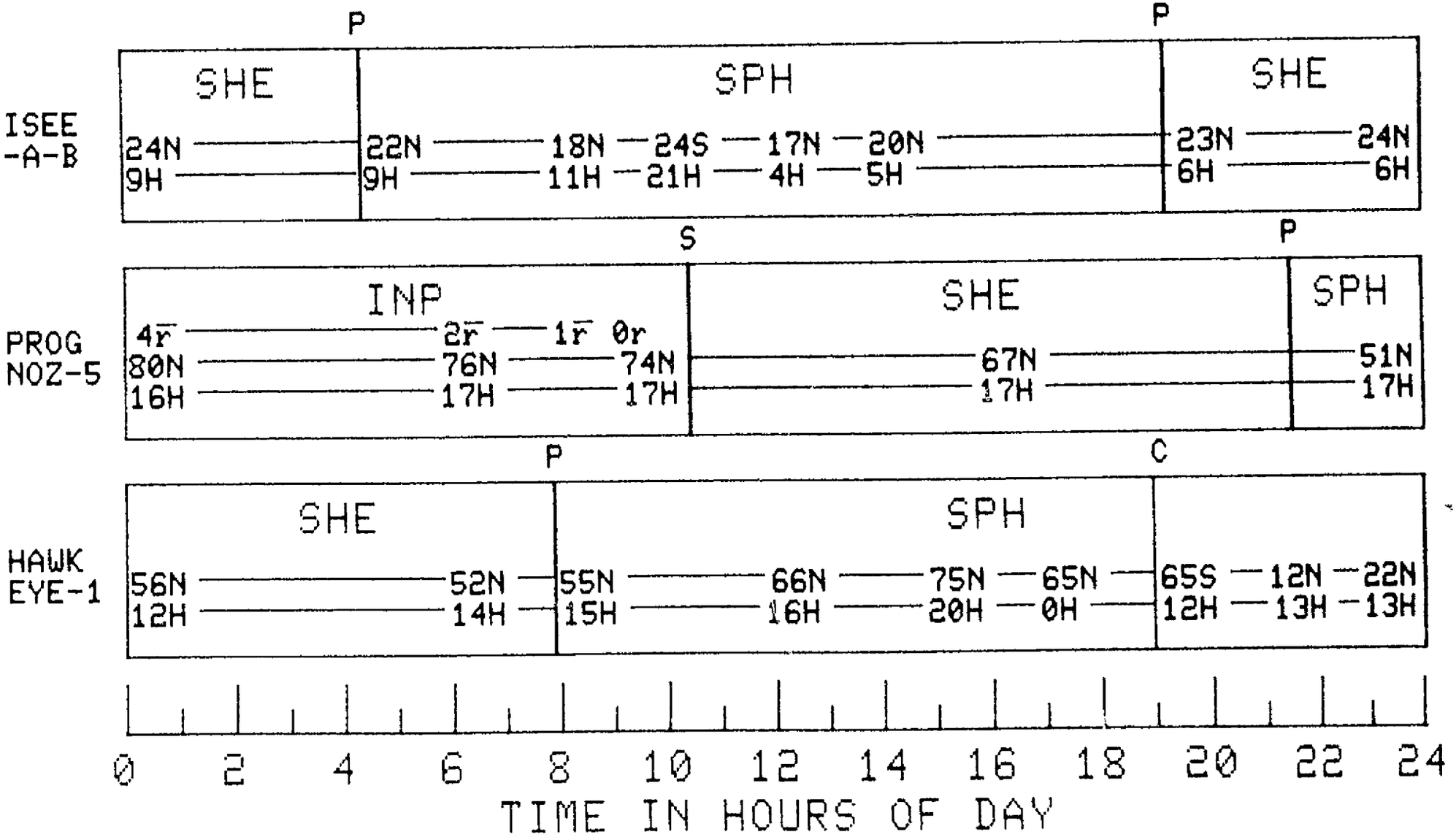
DAY 340 1977


IMP-J
INP
4r̄
19N
4H
6r̄
22N
5H
11r̄
27N
5H
13r̄
29N
6H
S
IMP-H
INP
SHE
4r̄
22S
18H
1r̄ 0r
21S
19H
9r
18S
20H
16S
20H
S
SOL RAD -11B
INP
SHE
5r̄
4S
13H
4r̄
5S
14H
1r̄ 0r
6S
16H
4r
5S
18H
P
SOL RAD -11A
TAL
SPH
SHE
5r
5N
2H
11r
5N
4H
5N
5H
4N
7H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

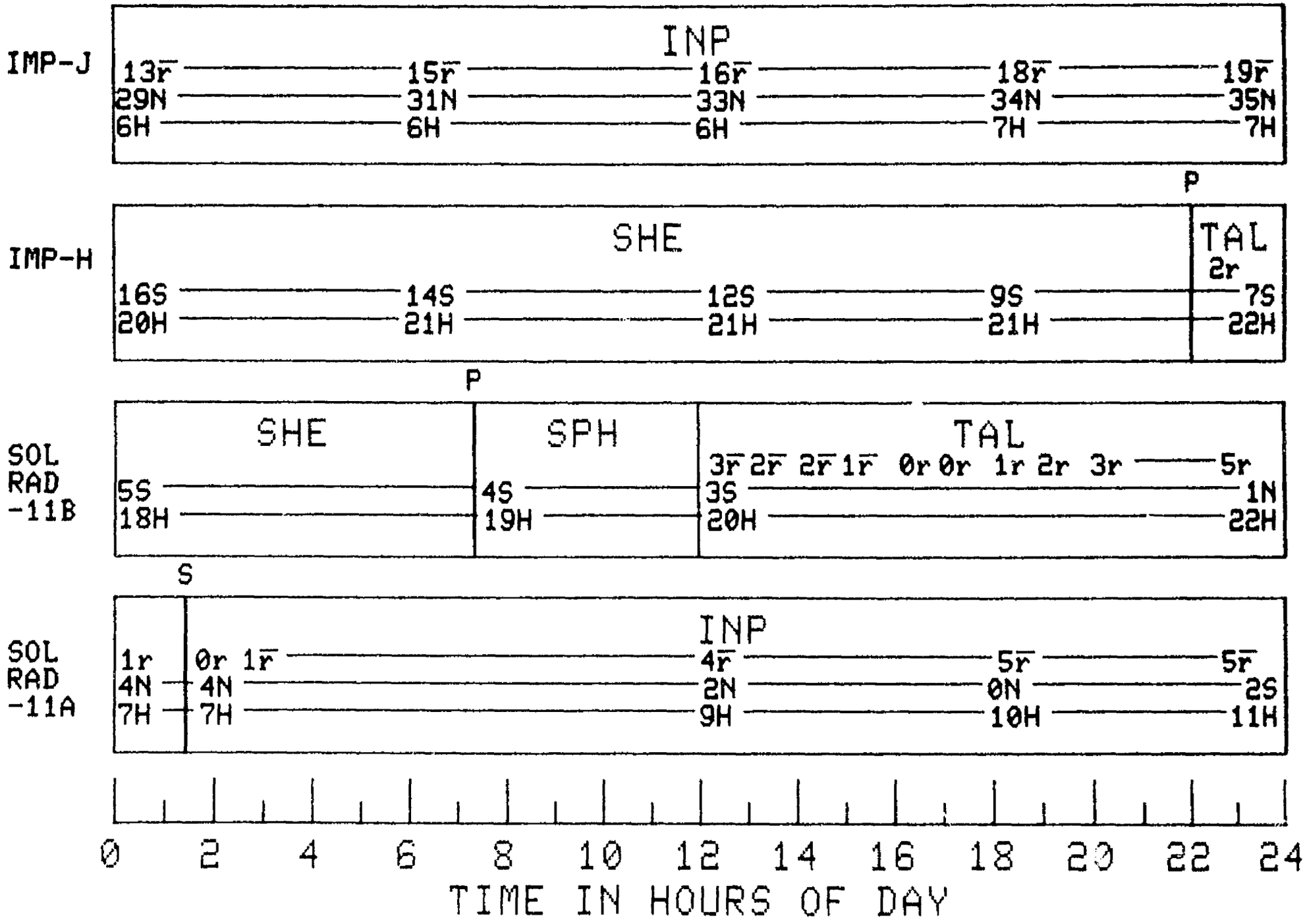
DAY 340 1977


VELA -6B
INP
SHE
S
3r̄ 3r̄ 2r̄ 1r̄ 1r̄ 1r̄ 1r̄ 0r 0r
36N 22N 7N 8S 15S 22S
13H 14H 14H 15H 16H 16H
VELA -6A
SPH
SHE
INP
P
S
7r 0r0r 1r̄ 1r̄ 1r̄ 1r̄ 2r̄
27N 32N 50N 52N 46N
5H 5H 7H 9H 11H
VELA -5B
TAL
SPH
SHE
P
3r 12r
0N 14N 38N 46N 53N
3H 3H 5H 6H 8H
VELA -5A
SHE
SPH
TAL
P
37S 47S 53S 13r̄ 9r̄
17H 18H 20H 51S 43S
22H 24H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

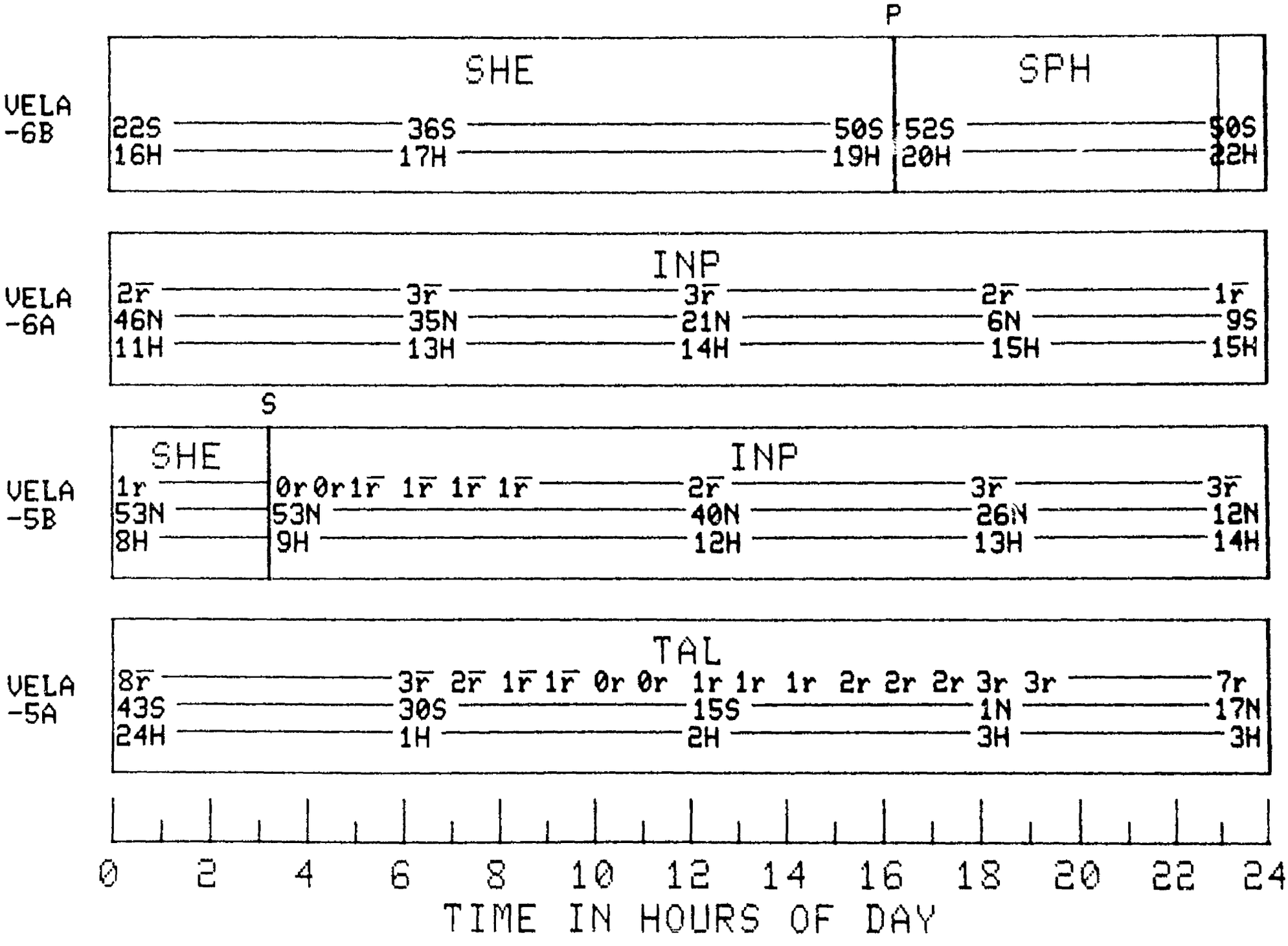
DAY 340 1977


P
P
SHE
SPH
SHE
ISEE
-A-B
24N
9H
22N
9H
18N
11H
24S
21H
17N
4H
20N
5H
23N
6H
24N
6H
S
P
INP
SHE
SPH
PROG
NOZ-5
4r
80N
16H
2r
76N
17H
1r
74N
17H
0r
67N
17H
51N
17H
P
C
SHE
SPH
HAWK
EYE-1
56N
12H
52N
14H
55N
15H
66N
16H
75N
20H
65N
0H
65S
12H
12N
13H
22N
13H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

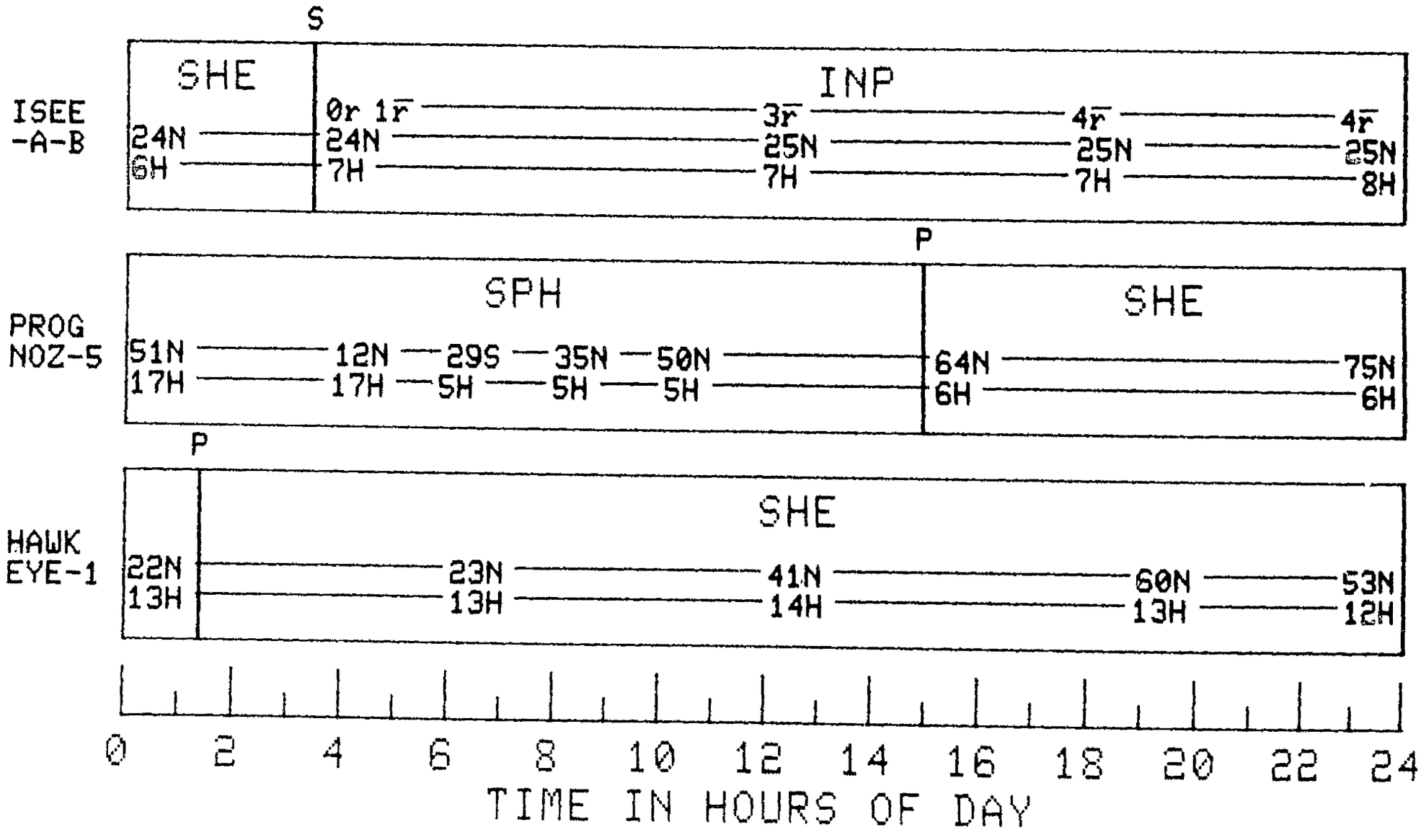
DAY 341 1977


IMP-J
INP
13r̄ 15r̄ 16r̄ 18r̄ 19r̄
29N 31N 33N 34N 35N
6H 6H 6H 7H 7H
P
IMP-H
SHE
TAL
2r
16S 14S 12S 9S 7S
20H 21H 21H 21H 22H
P
SOL RAD -11B
SHE
SPH
TAL
3r̄ 2r̄ 2r̄ 1r̄ 0r 0r 1r 2r 3r 5r
5S 4S 3S 1N
18H 19H 20H 22H
S
SOL RAD -11A
INP
1r 0r 1r̄ 4r̄ 5r̄ 5r̄
4N 4N 2N 0N 2S
7H 7H 9H 10H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

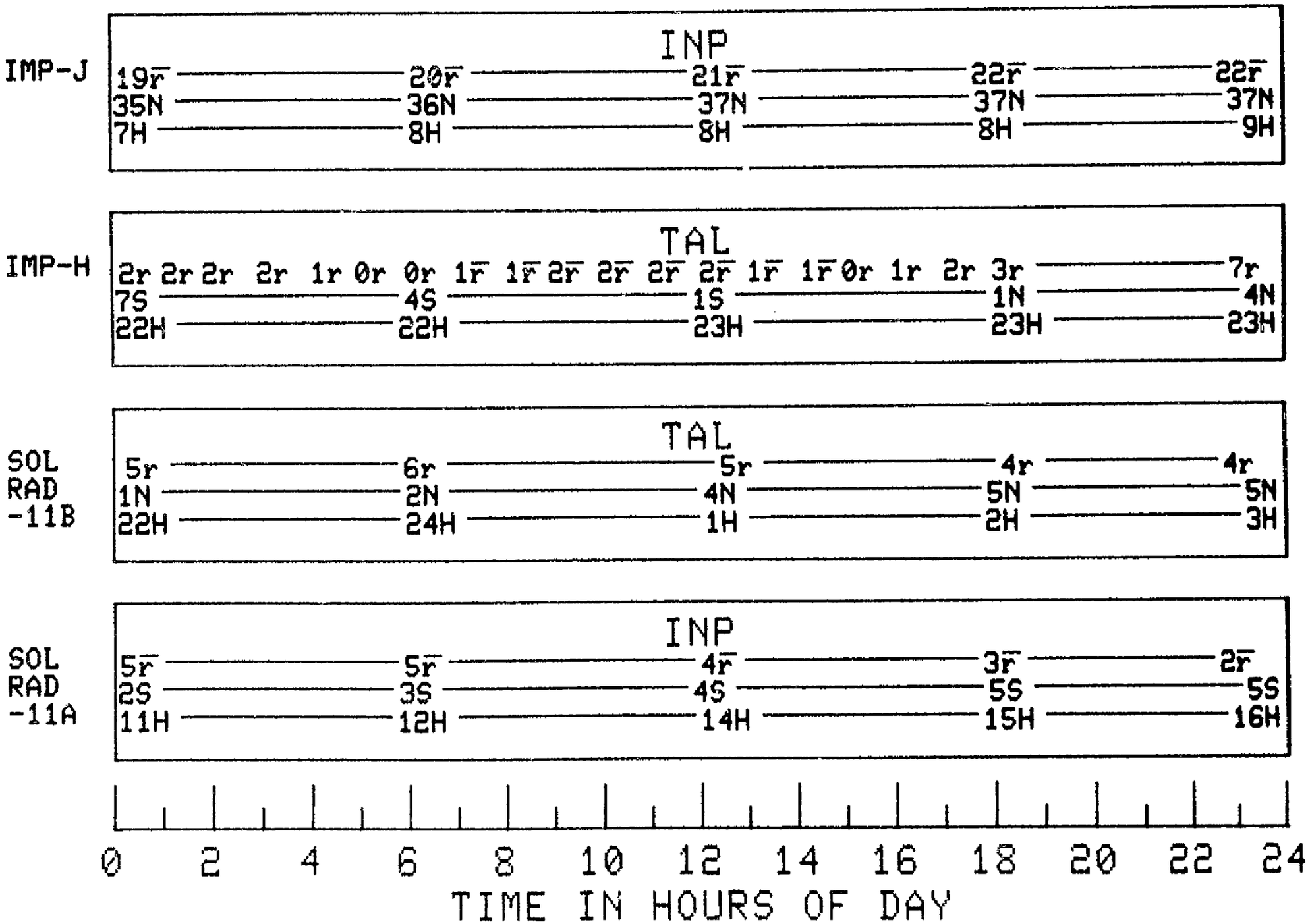
DAY 341 1977


P
SHE
SPH
VELA -6B
22S 36S 50S 52S 50S
16H 17H 19H 20H 22H
INP
VELA -6A
2r 3r 3r 2r 1r
46N 35N 21N 6N 9S
11H 13H 14H 15H 15H
S
SHE
INP
VELA -5B
1r 0r 0r 1r 1r 1r 1r 2r 3r 3r
53N 53N 40N 26N 12N
8H 9H 12H 13H 14H
TAL
VELA -5A
8r 3r 2r 1r 1r 0r 0r 1r 1r 1r 2r 2r 2r 3r 3r 7r
43S 30S 15S 1N 17N
24H 1H 2H 3H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

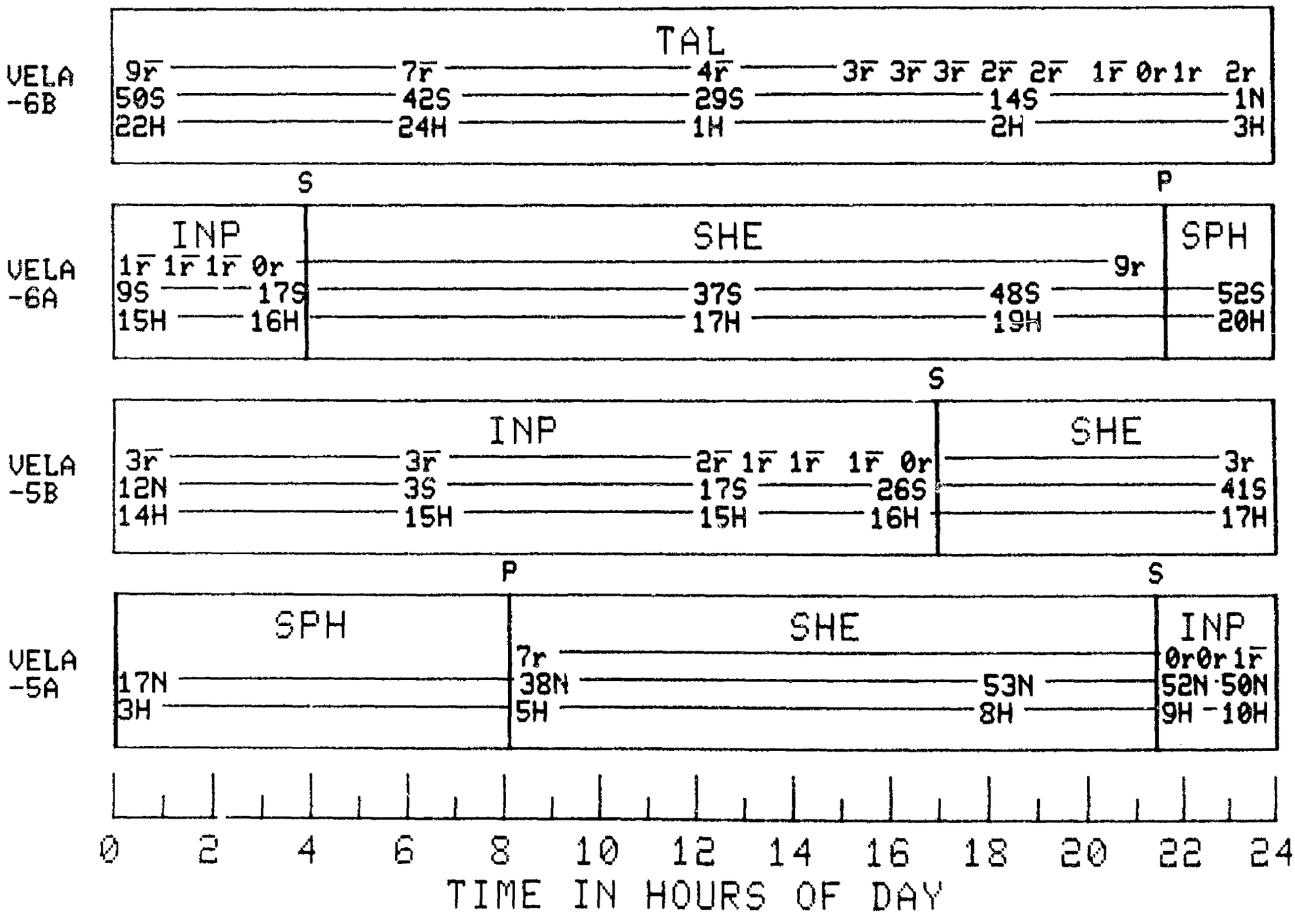
DAY 341 1977


S
SHE
INP
ISEE
-A-B
24N
6H
0r 1r
24N
7H
3r
25N
7H
4r
25N
7H
4r
25N
8H
P
SPH
SHE
PROG
NOZ-5
51N
17H
12N
17H
29S
5H
35N
5H
50N
5H
64N
6H
75N
6H
P
SHE
HAWK
EYE-1
22N
13H
23N
13H
41N
14H
60N
13H
53N
12H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

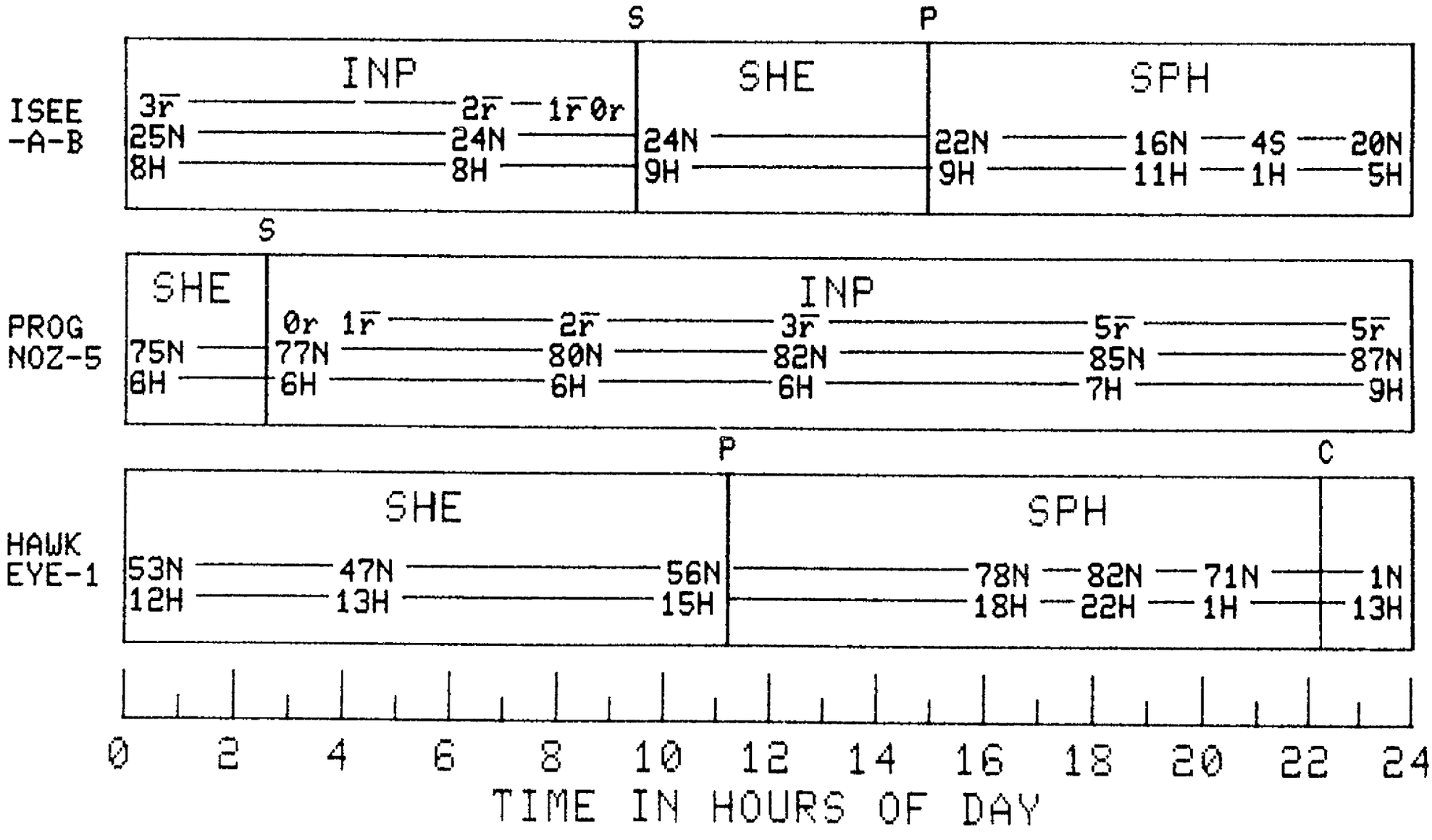
DAY 342 1977


IMP-J
INP
19r 20r 21r 22r 22r
35N 36N 37N 37N 37N
7H 8H 8H 8H 9H
IMP-H
TAL
2r 2r 2r 2r 1r 0r 0r 1r 1r 2r 2r 2r 2r 1r 1r 0r 1r 2r 3r 7r
7S 4S 1S 1N 4N
22H 22H 23H 23H 23H
SOL RAD -11B
TAL
5r 6r 5r 4r 4r
1N 2N 4N 5N 5N
22H 24H 1H 2H 3H
SOL RAD -11A
INP
5r 5r 4r 3r 2r
2S 3S 4S 5S 5S
11H 12H 14H 15H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

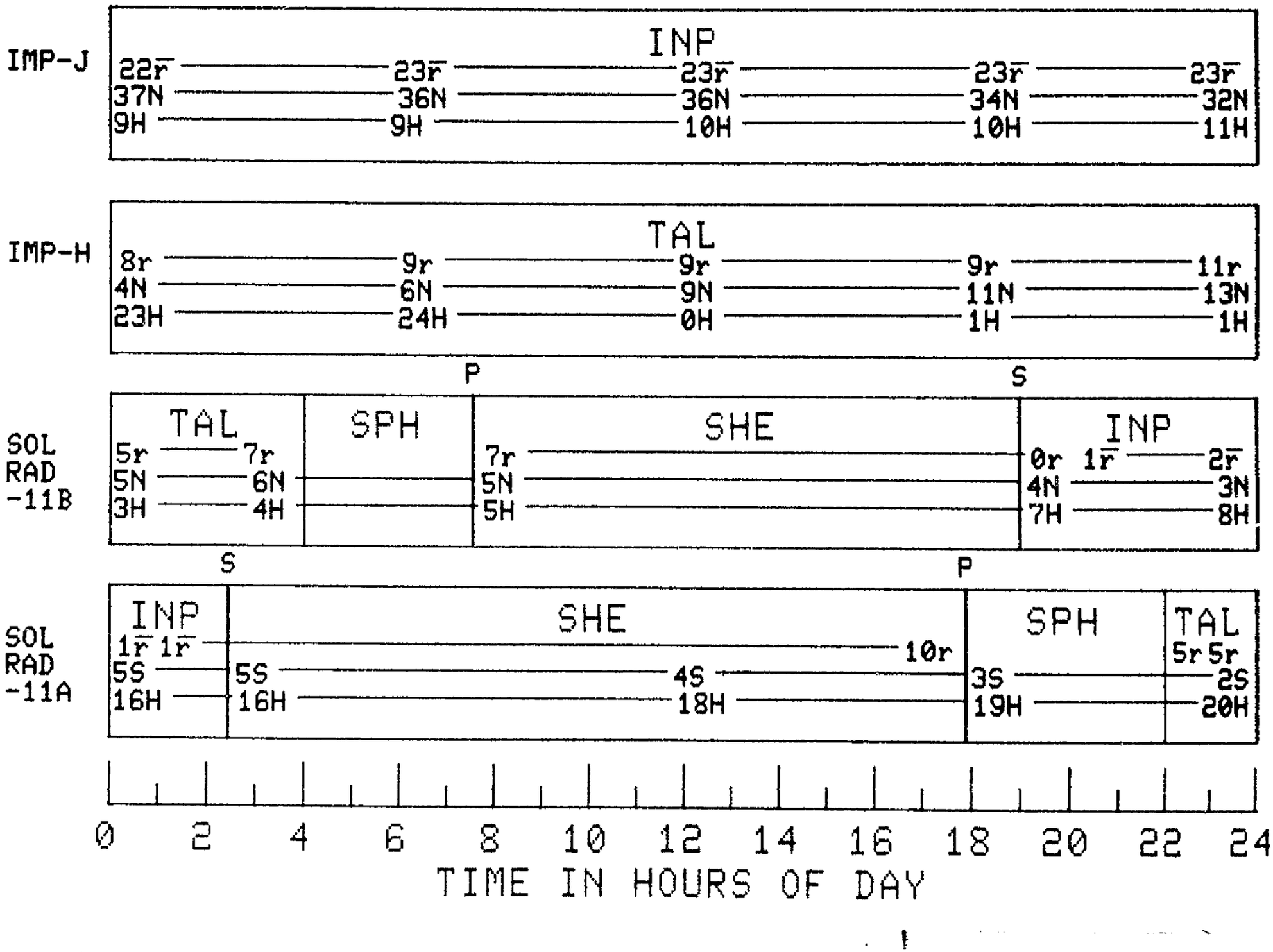
DAY 342 1977


VELA -6B
TAL
9r̄ 7r̄ 4r̄ 3r̄ 3r̄ 3r̄ 2r̄ 2r̄ 1r̄ 0r 1r 2r
50S 42S 29S 14S 1N
22H 24H 1H 2H 3H
S
P
VELA -6A
INP
1r̄ 1r̄ 1r̄ 0r
9S 17S
15H 16H
SHE
9r
37S 48S
17H 19H
SPH
52S
20H
S
VELA -5B
INP
3r̄ 3r̄ 2r̄ 1r̄ 1r̄ 1r̄ 0r
12N 3S 17S 26S
14H 15H 15H 16H
SHE
3r
41S
17H
P
S
VELA -5A
SPH
17N
3H
SHE
7r
38N 53N
5H 8H
INP
0r 0r 1r̄
52N 50N
9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

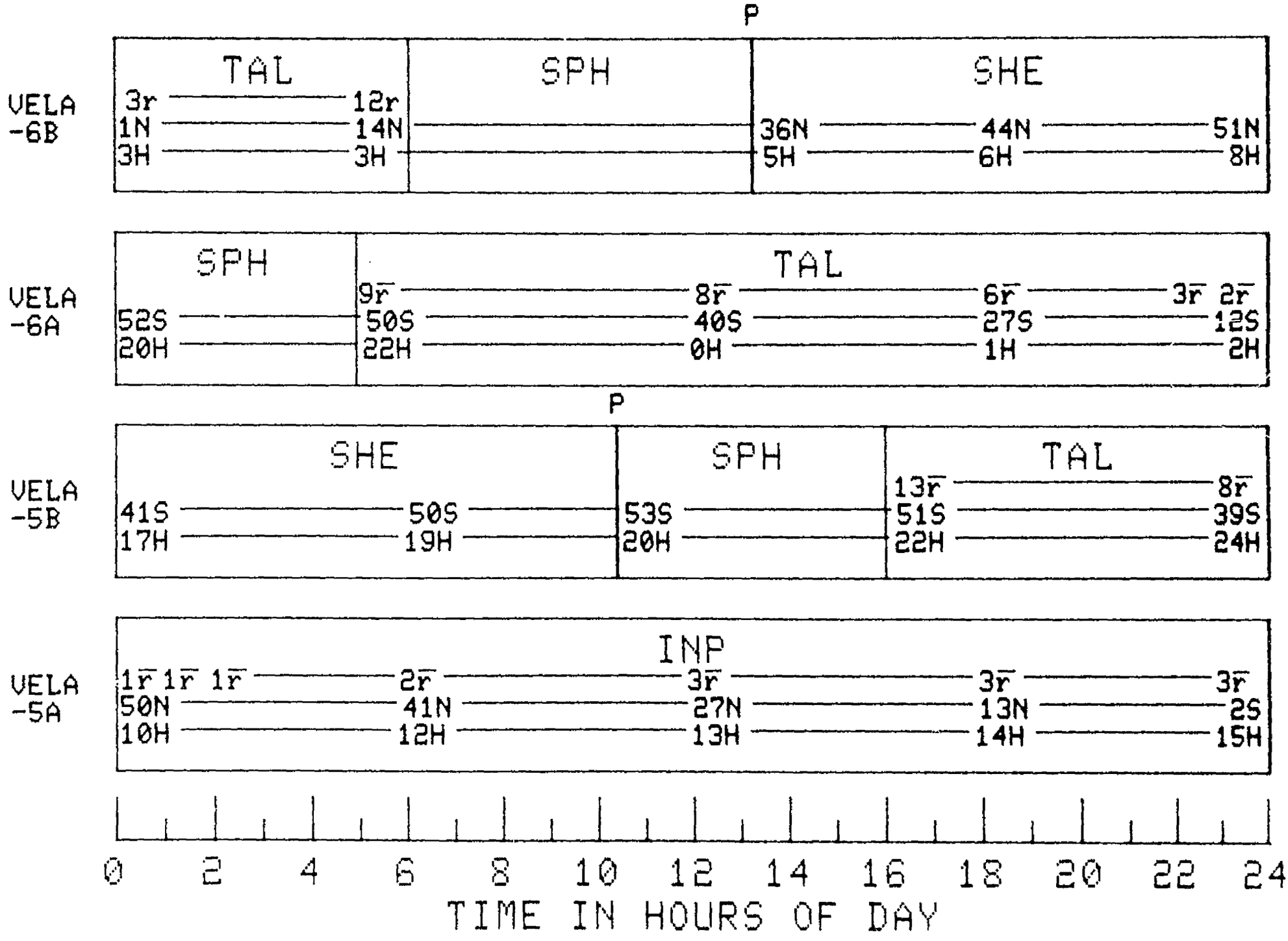
DAY 342 1977


S
P
INP
SHE
SPH
ISEE
-A-B
3r
2r
1r
0r
25N
24N
8H
8H
24N
9H
22N
16N
4S
20N
9H
11H
1H
5H
S
SHE
INP
PROG
NOZ-5
0r
1r
2r
3r
5r
5r
75N
77N
80N
82N
85N
87N
6H
6H
6H
6H
7H
9H
P
C
SHE
SPH
HAWK
EYE-1
53N
47N
56N
78N
82N
71N
1N
12H
13H
15H
18H
22H
1H
13H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

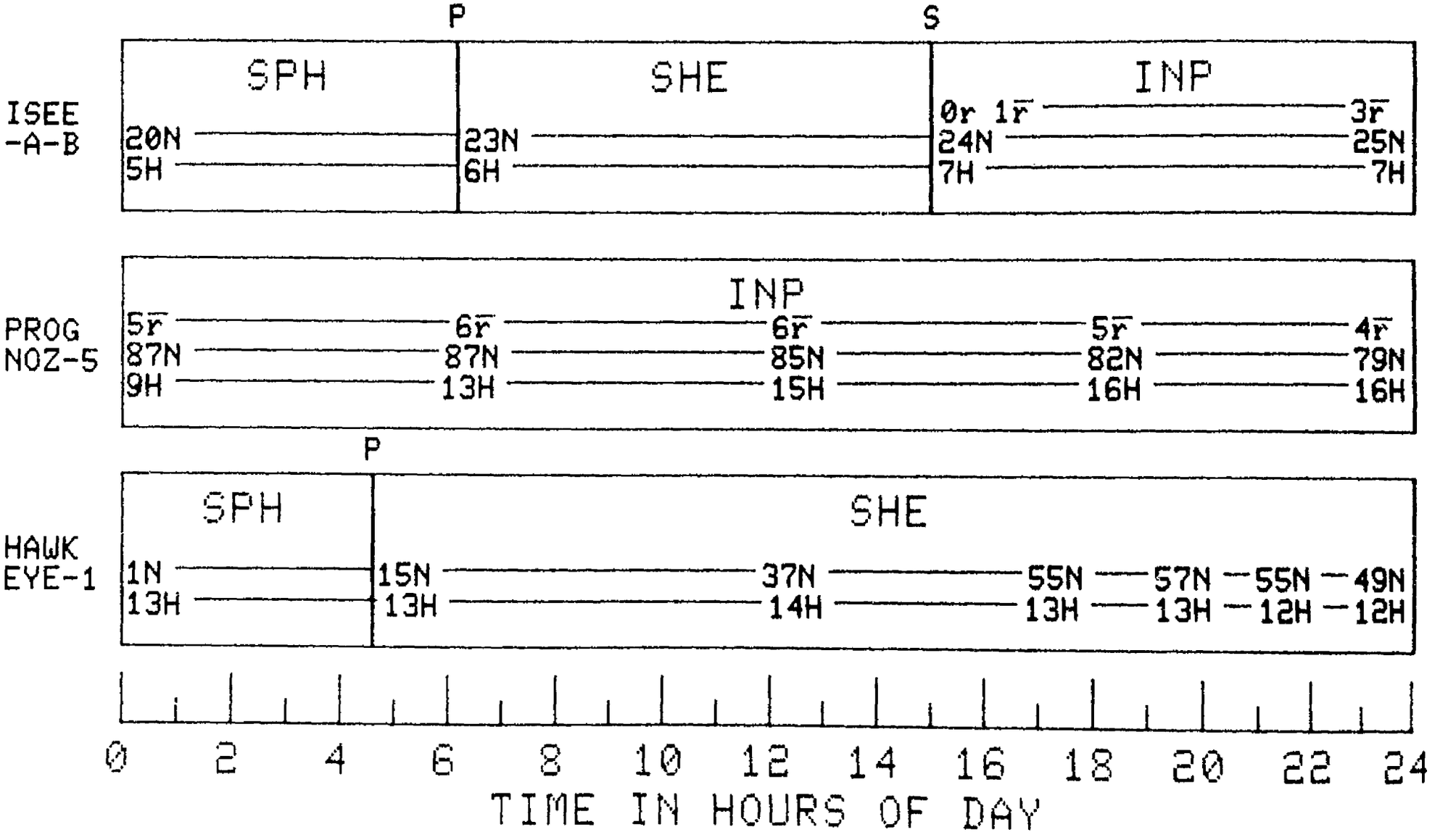
DAY 343 1977


IMP-J
INP
22r̄ 23r̄ 23r̄ 23r̄ 23r̄
37N 36N 36N 34N 32N
9H 9H 10H 10H 11H
IMP-H
TAL
8r 9r 9r 9r 11r
4N 6N 9N 11N 13N
23H 24H 0H 1H 1H
P
S
SOL RAD -11B
TAL
SPH
SHE
INP
5r 7r
5N 6N
3H 4H
7r
5N
5H
0r 1r̄ 2r̄
4N 3N
7H 8H
S
P
SOL RAD -11A
INP
SHE
SPH
TAL
1r̄ 1r̄ 10r
5S 5S 4S 3S 5r 5r 2S
16H 16H 18H 19H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

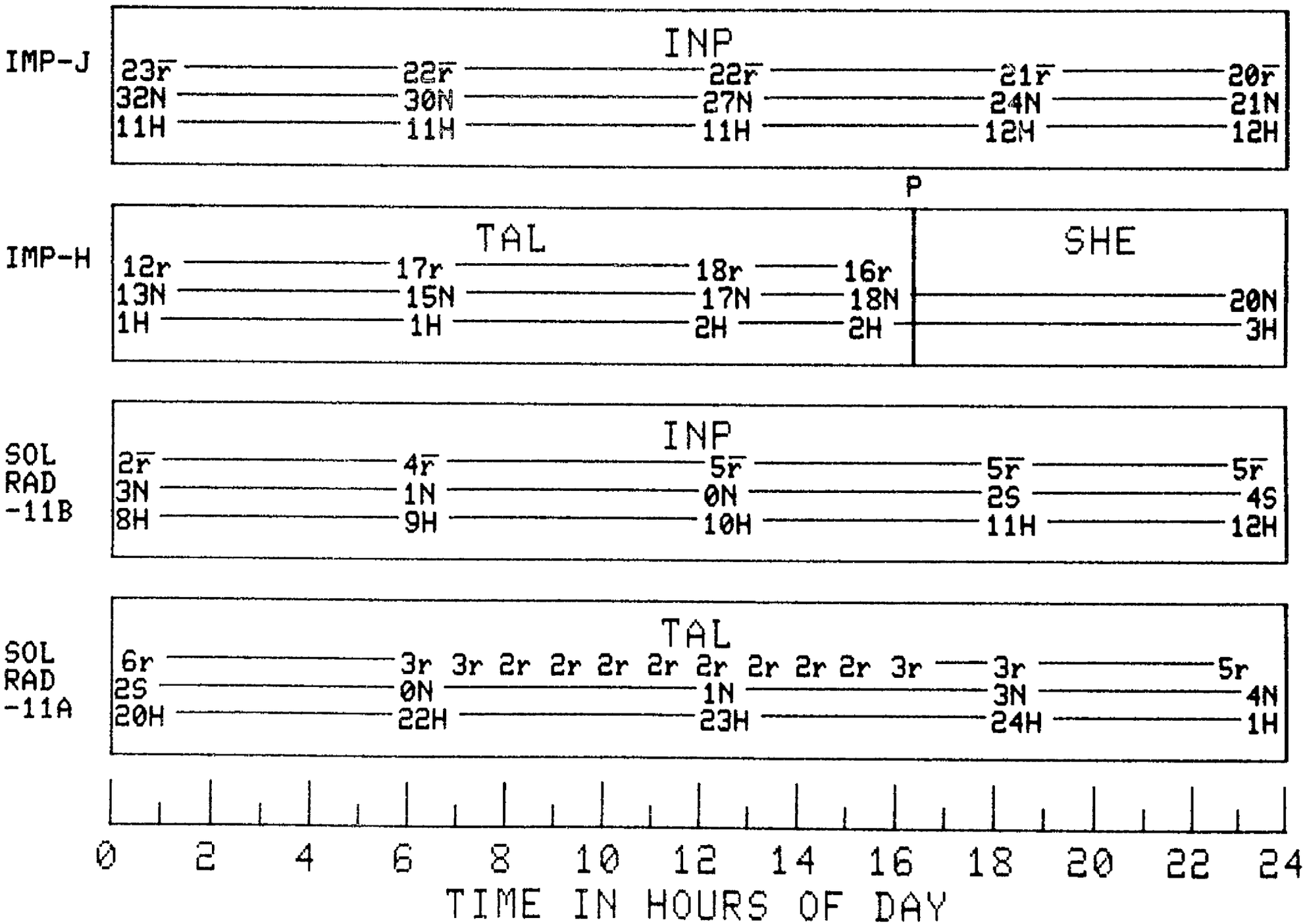
DAY 343 1977


P
VELA -6B
TAL
SPH
SHE
3r 12r
1N 14N
3H 3H
36N 44N 51N
5H 6H 8H
VELA -6A
SPH
TAL
52S
20H
9r̄ 8r̄ 6r̄ 3r 2r̄
50S 40S 27S 12S
22H 0H 1H 2H
P
VELA -5B
SHE
SPH
TAL
41S 50S
17H 19H
53S
20H
13r̄ 8r̄
51S 39S
22H 24H
VELA -5A
INP
1r̄ 1r̄ 1r̄ 2r̄ 3r̄ 3r̄ 3r̄
50N 41N 27N 13N 2S
10H 12H 13H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

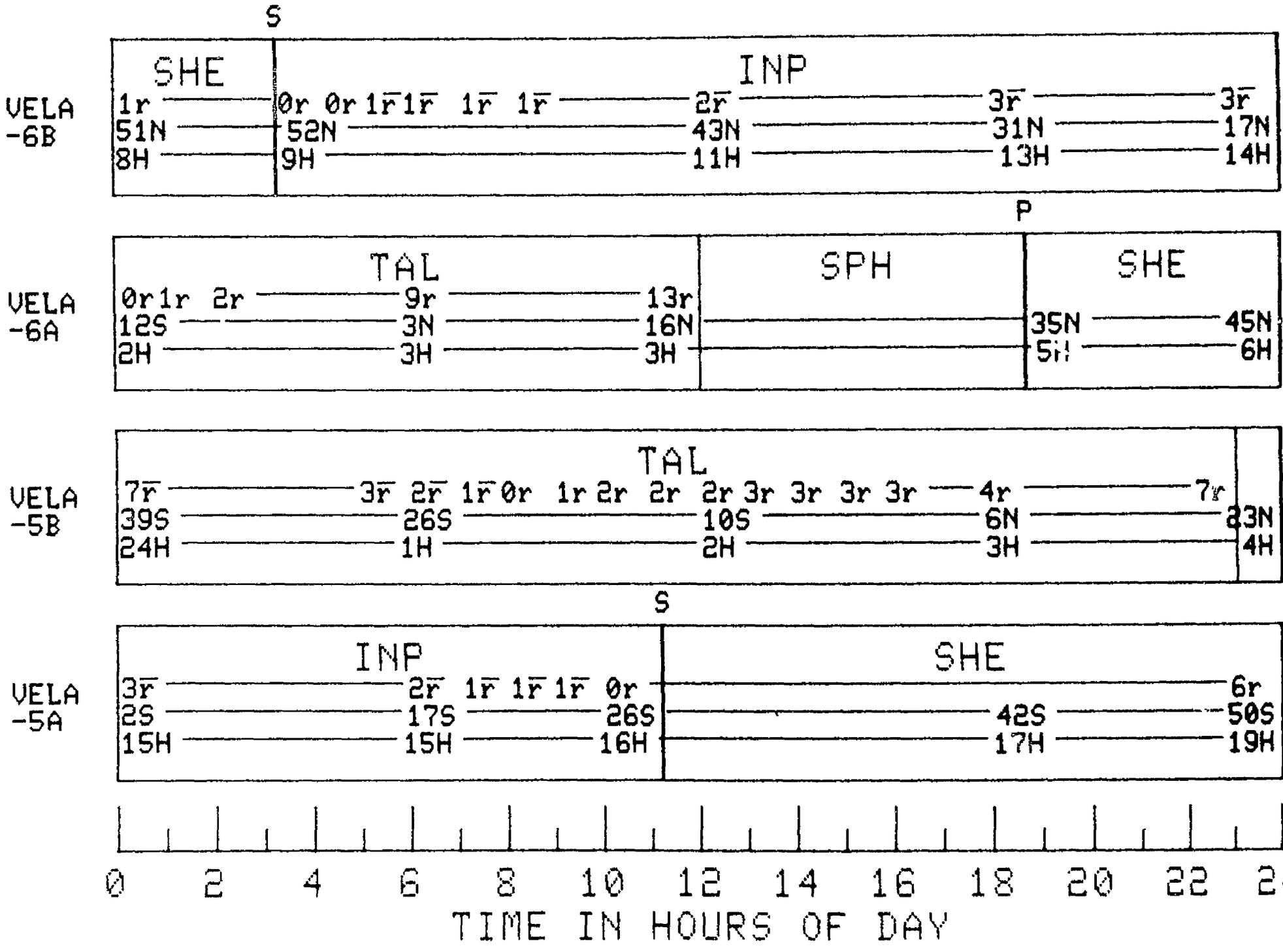
DAY 343 1977


P
S
SPH
SHE
INP
ISEE
-A-B
20N
5H
23N
6H
0r 1r̄
24N
7H
3r̄
25N
7H
INP
PROG
NOZ-5
5r̄ 87N 9H
6r̄ 87N 13H
6r̄ 85N 15H
5r̄ 82N 16H
4r̄ 79N 16H
P
SPH
SHE
HAWK
EYE-1
1N 13H
15N 13H
37N 14H
55N 13H
57N 13H
55N 12H
49N 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

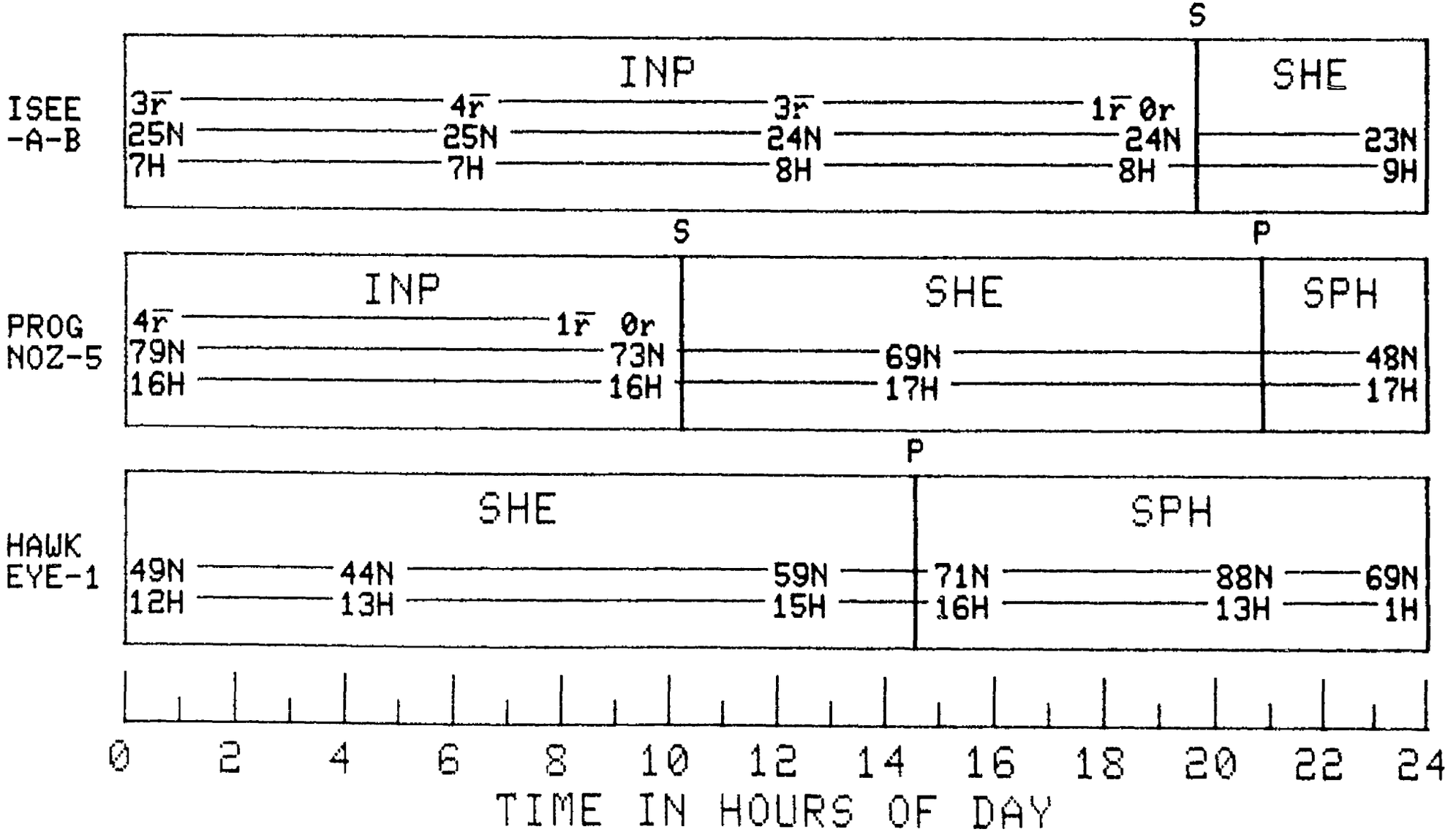
DAY 344 1977


IMP-J
INP
23r 22r 22r 21r 20r
32N 30N 27N 24N 21N
11H 11H 11H 12H 12H
P
IMP-H
TAL
12r 17r 18r 16r
13N 15N 17N 18N
1H 1H 2H 2H
SHE
20N
3H
SOL RAD -11B
INP
2r 4r 5r 5r 5r
3N 1N 0N 2S 4S
8H 9H 10H 11H 12H
SOL RAD -11A
TAL
6r 3r 3r 2r 2r 2r 2r 2r 2r 2r 2r 3r 3r 5r
2S 0N 1N 3N 4N
20H 22H 23H 24H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

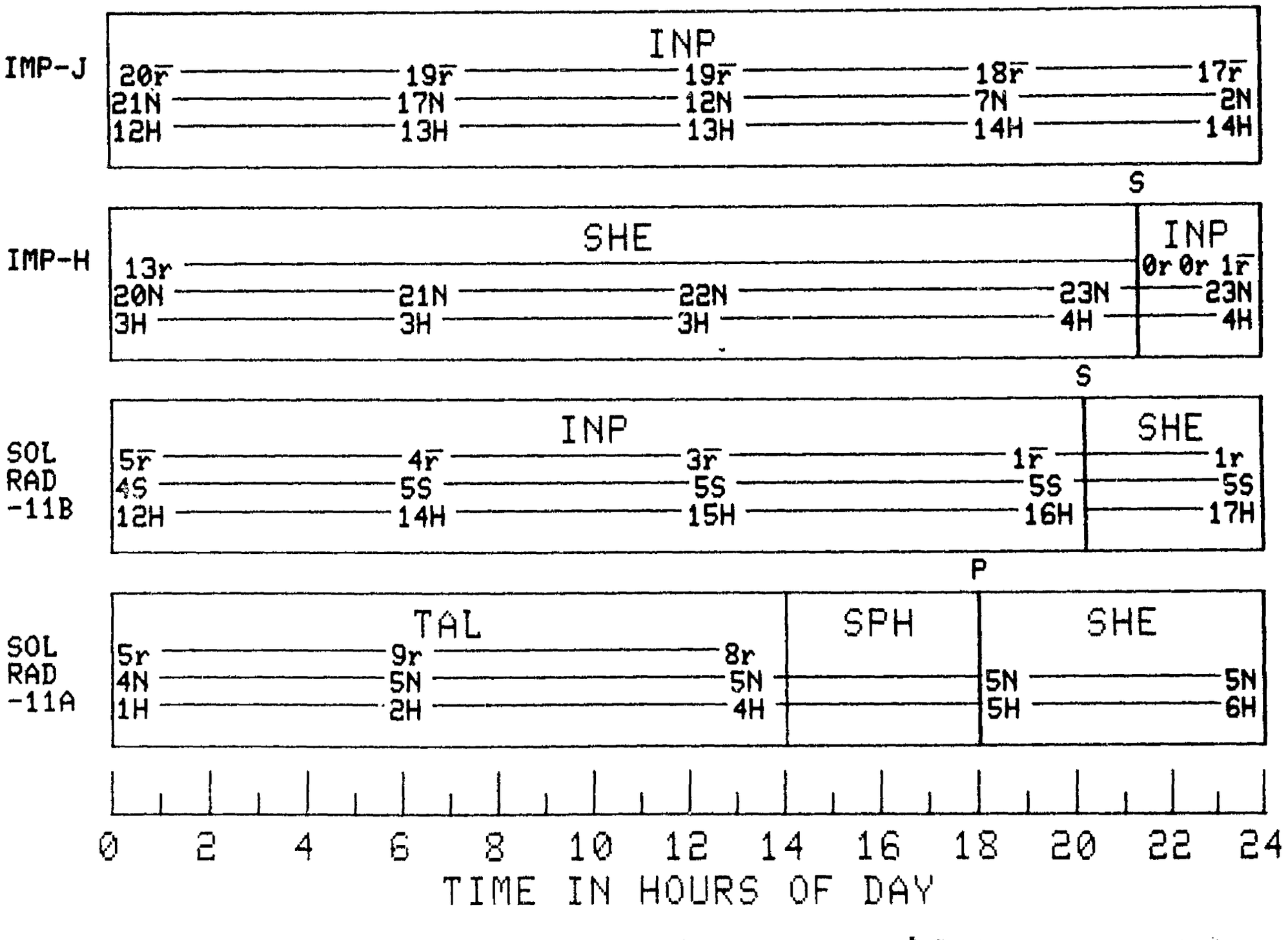
DAY 344 1977


S
SHE
INP
VELA -6B
1r 0r 0r 1r̄ 1r̄ 1r̄ 1r̄ 2r̄ 3r̄ 3r̄
51N 52N 43N 31N 17N
8H 9H 11H 13H 14H
P
TAL
SPH
SHE
VELA -6A
0r 1r 2r 9r 13r
12S 3N 16N 35N 45N
2H 3H 3H 5H 6H
TAL
VELA -5B
7r̄ 3r̄ 2r̄ 1r̄ 0r 1r 2r 2r 2r 3r 3r 3r 3r 4r 7r
39S 26S 10S 6N 23N
24H 1H 2H 3H 4H
S
INP
SHE
VELA -5A
3r̄ 2r̄ 1r̄ 1r̄ 1r̄ 0r 6r
2S 17S 26S 42S 50S
15H 15H 16H 17H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

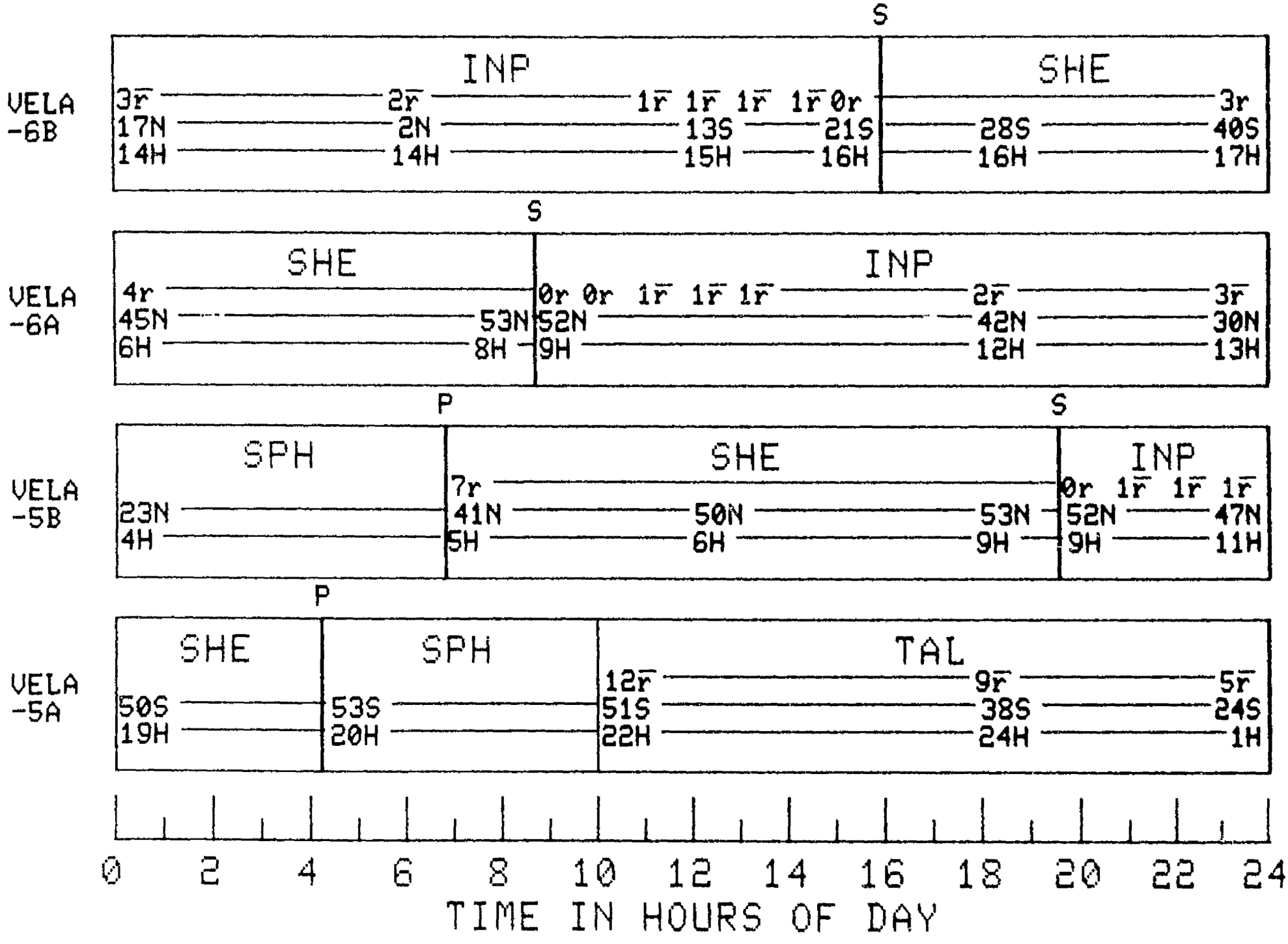
DAY 344 1977


S
INP
SHE
ISEE
-A-B
3r̄ 4r̄ 3r̄ 1r̄ 0r
25N 25N 24N 24N 23N
7H 7H 8H 8H 9H
S
P
INP
SHE
SPH
PROG
NOZ-5
4r̄ 1r̄ 0r
79N 73N 69N 48N
16H 16H 17H 17H
P
SHE
SPH
HAWK
EYE-1
49N 44N 59N 71N 88N 69N
12H 13H 15H 16H 13H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

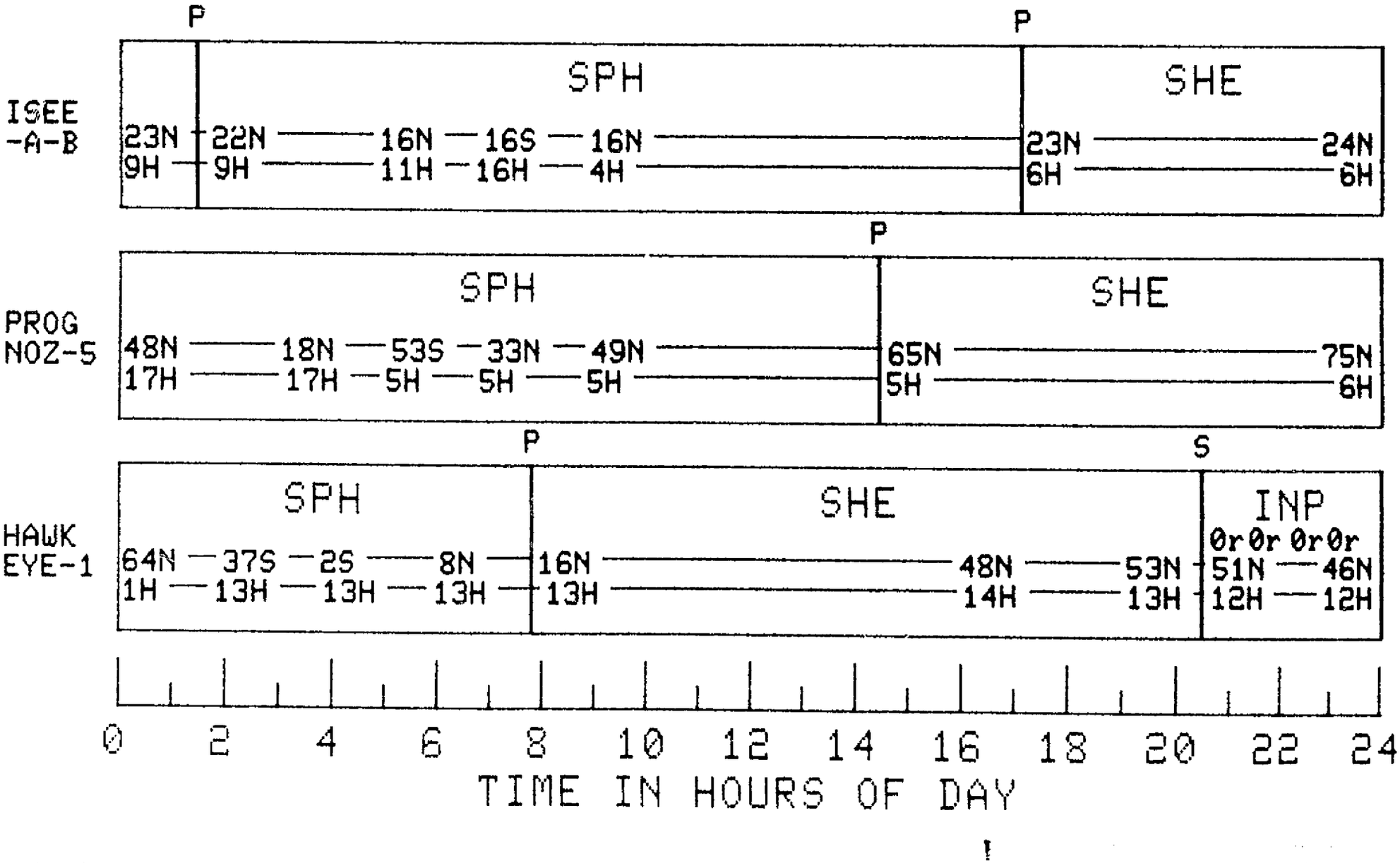
DAY 345 1977


IMP-J
INP
20r̄ 19r̄ 19r̄ 18r̄ 17r̄
21N 17N 12N 7N 2N
12H 13H 13H 14H 14H
S
IMP-H
SHE
INP
13r
0r 0r 1r̄
20N 21N 22N 23N 23N
3H 3H 3H 4H 4H
S
SOL RAD -11B
INP
SHE
5r̄ 4r̄ 3r̄ 1r̄ 1r
4S 5S 5S 5S 5S
12H 14H 15H 16H 17H
P
SOL RAD -11A
TAL
SPH
SHE
5r 9r 8r
4N 5N 5N 5N 5N
1H 2H 4H 5H 6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

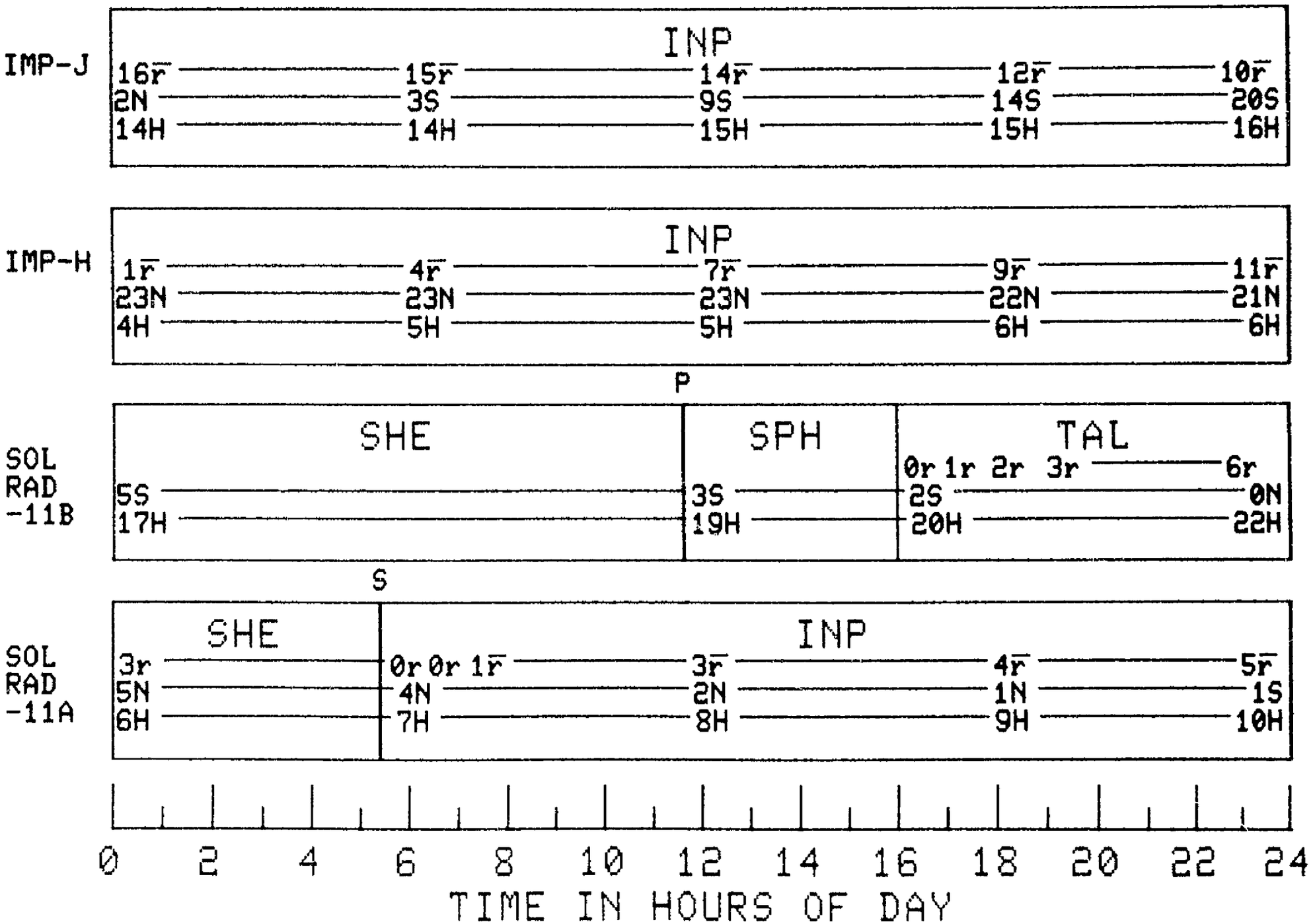
DAY 345 1977

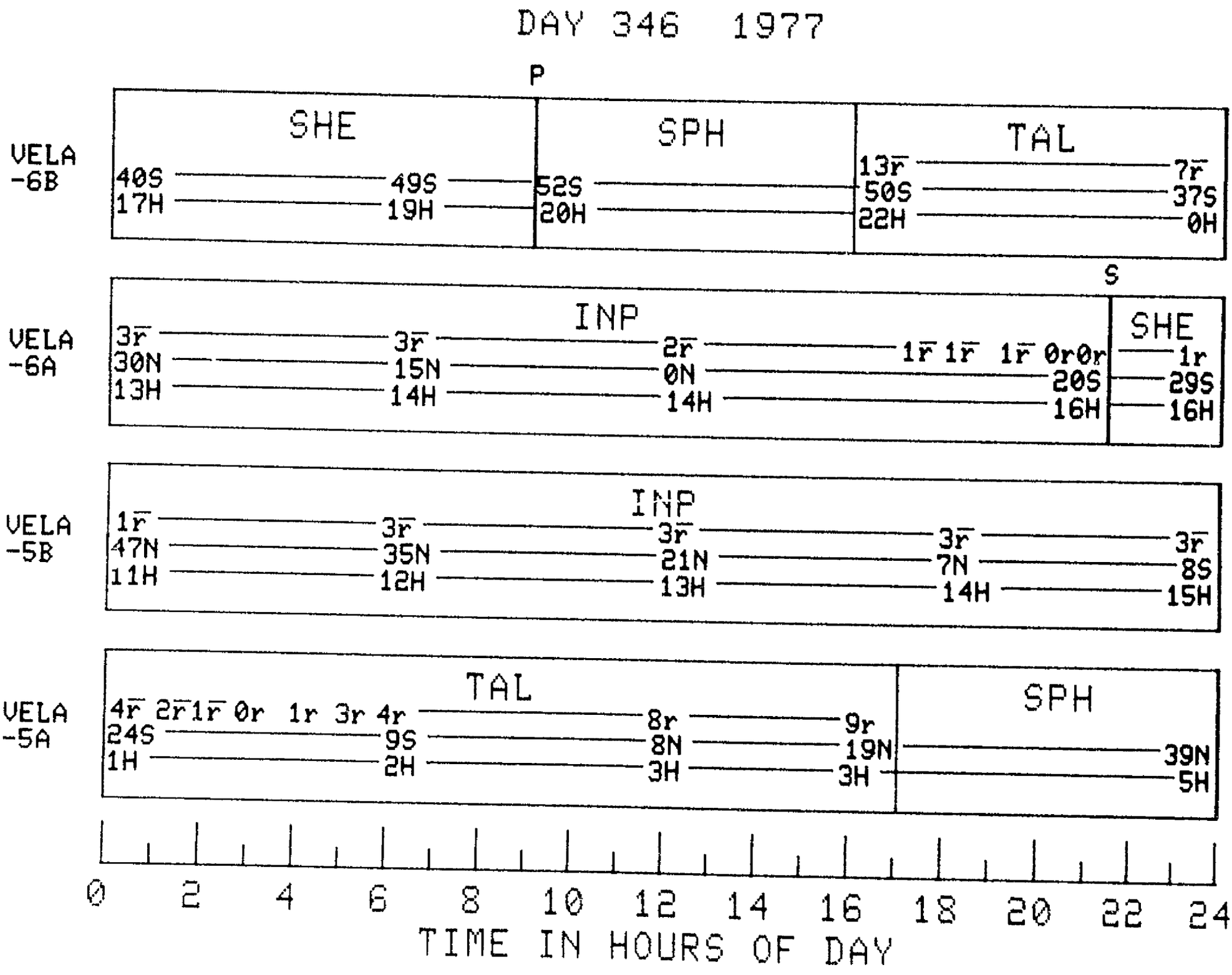

VELA -6B
S
INP
SHE
3r̄ 2r̄ 1r̄ 1r̄ 1r̄ 1r̄ 0r
17N 2N 13S 21S
14H 14H 15H 16H
3r
28S 40S
16H 17H
VELA -6A
S
SHE
INP
4r
45N 53N
6H 8H
0r 0r 1r̄ 1r̄ 1r̄ 2r̄ 3r̄
52N 42N 30N
9H 12H 13H
VELA -5B
P
S
SPH
SHE
INP
23N
4H
7r
41N 50N 53N
5H 6H 9H
0r 1r̄ 1r̄ 1r̄
52N 47N
9H 11H
VELA -5A
P
SHE
SPH
TAL
50S
19H
53S
20H
12r̄ 9r̄ 5r̄
51S 38S 24S
22H 24H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 345 1977

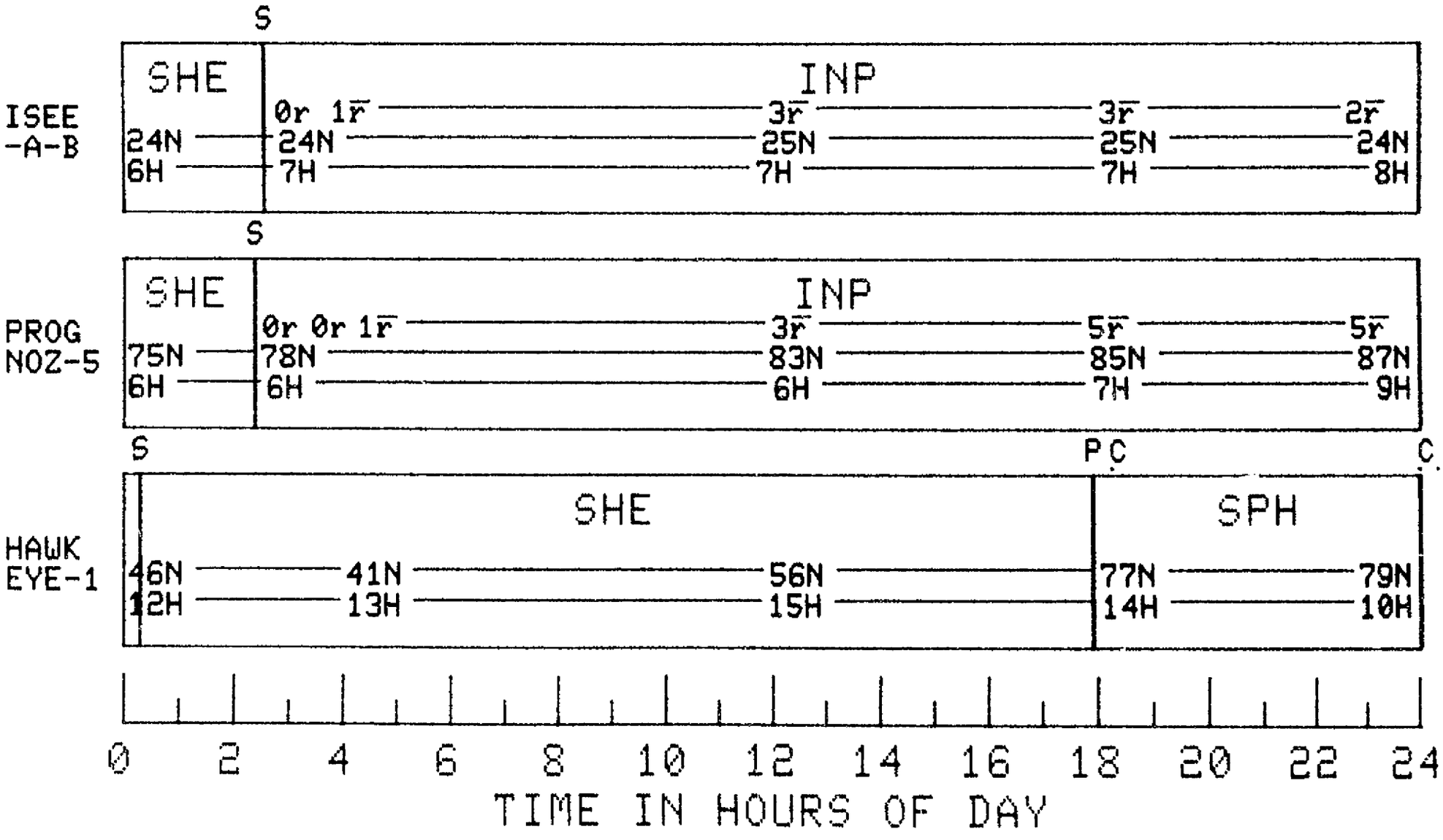

P
P
SPH
SHE
ISEE
-A-B
23N 22N 16N 16S 16N 23N 24N
9H 9H 11H 16H 4H 6H 6H
P
SPH
SHE
PROG
NOZ-5
48N 18N 53S 33N 49N 65N 75N
17H 17H 5H 5H 5H 5H 6H
P
S
SPH
SHE
INP
HAWK
EYE-1
64N 37S 2S 8N 16N 48N 53N 0r 0r 0r 0r 51N 46N
1H 13H 13H 13H 13H 14H 13H 12H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 346 1977

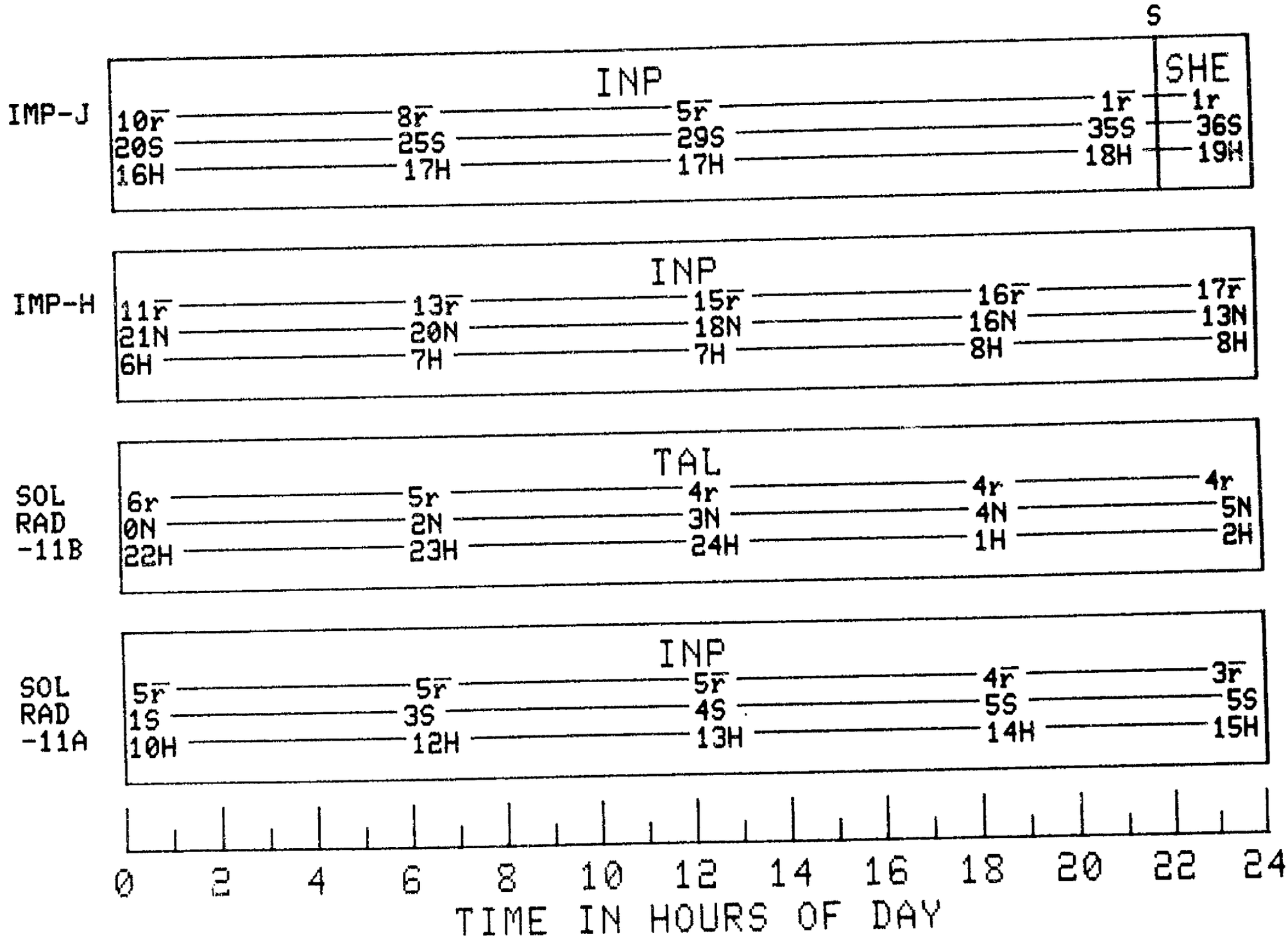

IMP-J
INP
16r̄ 15r̄ 14r̄ 12r̄ 10r̄
2N 3S 9S 14S 20S
14H 14H 15H 15H 16H
IMP-H
INP
1r̄ 4r̄ 7r̄ 9r̄ 11r̄
23N 23N 23N 22N 21N
4H 5H 5H 6H 6H
P
SOL RAD -11B
SHE
SPH
TAL
0r 1r 2r 3r 6r
5S 3S 2S 0N
17H 19H 20H 22H
S
SOL RAD -11A
SHE
INP
3r 0r 0r 1r̄ 3r̄ 4r̄ 5r̄
5N 4N 2N 1N 1S
6H 7H 8H 9H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 346 1977
P
S
VELA -6B
SHE
SPH
TAL
40S 49S
17H 19H
52S
20H
13r 7r
50S 37S
22H 0H
VELA -6A
INP
SHE
3r 3r 2r 1r 1r 1r 0r0r
30N 15N 0N 20S 1r
13H 14H 14H 16H 29S 16H
VELA -5B
INP
1r 3r 3r 3r 3r
47N 35N 21N 7N 8S
11H 12H 13H 14H 15H
VELA -5A
TAL
SPH
4r 2r1r 0r 1r 3r 4r 8r 9r
24S 9S 8N 19N 39N
1H 2H 3H 3H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

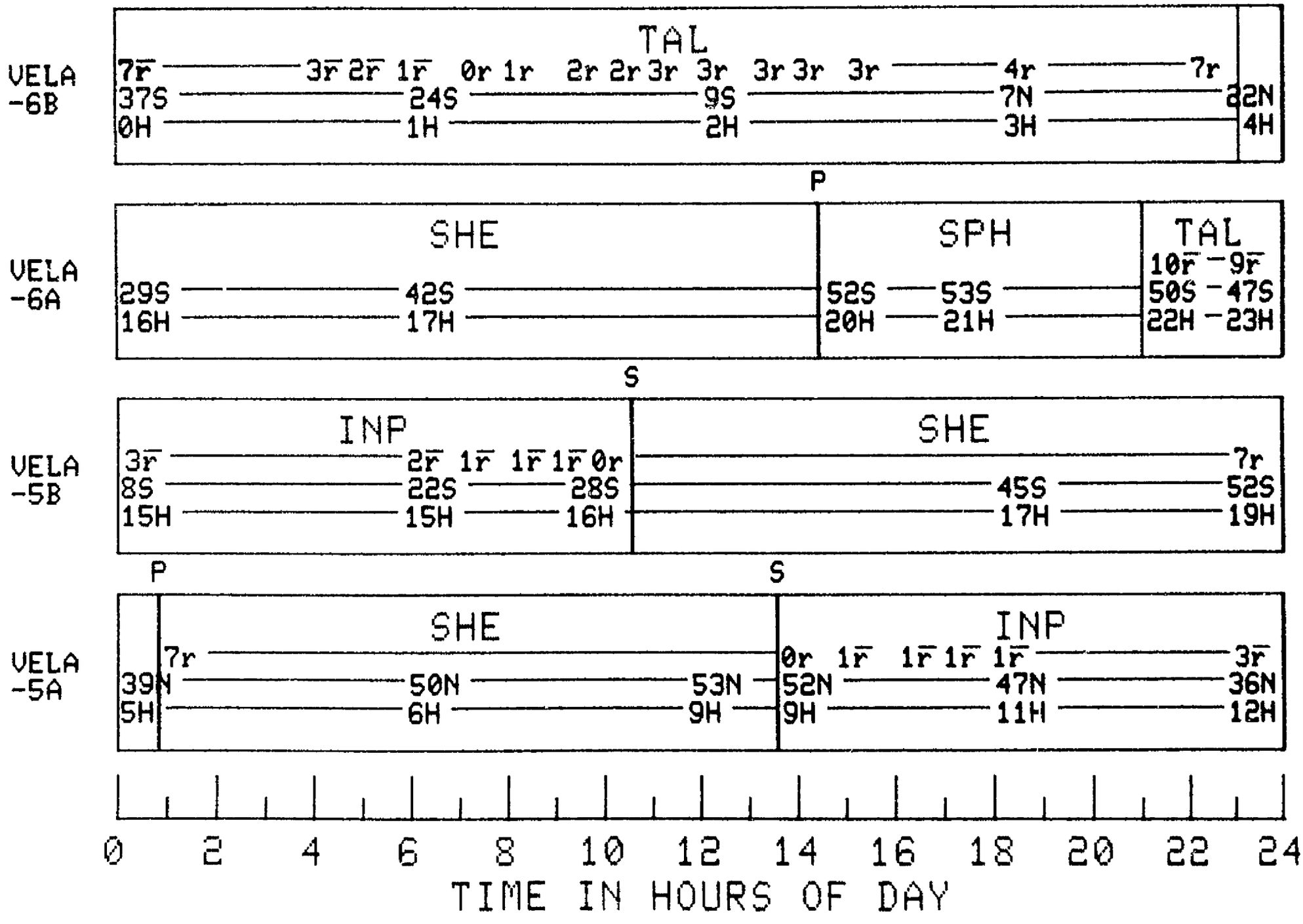
DAY 346 1977


S
SHE
INP
ISEE
-A-B
0r 1r
3r
3r
2r
24N
24N
25N
25N
24N
6H
7H
7H
7H
8H
S
SHE
INP
PROG
NOZ-5
0r 0r 1r
3r
5r
5r
75N
78N
83N
85N
87N
6H
6H
6H
7H
9H
S
PC
C
SHE
SPH
HAWK
EYE-1
46N
41N
56N
77N
79N
12H
13H
15H
14H
10H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

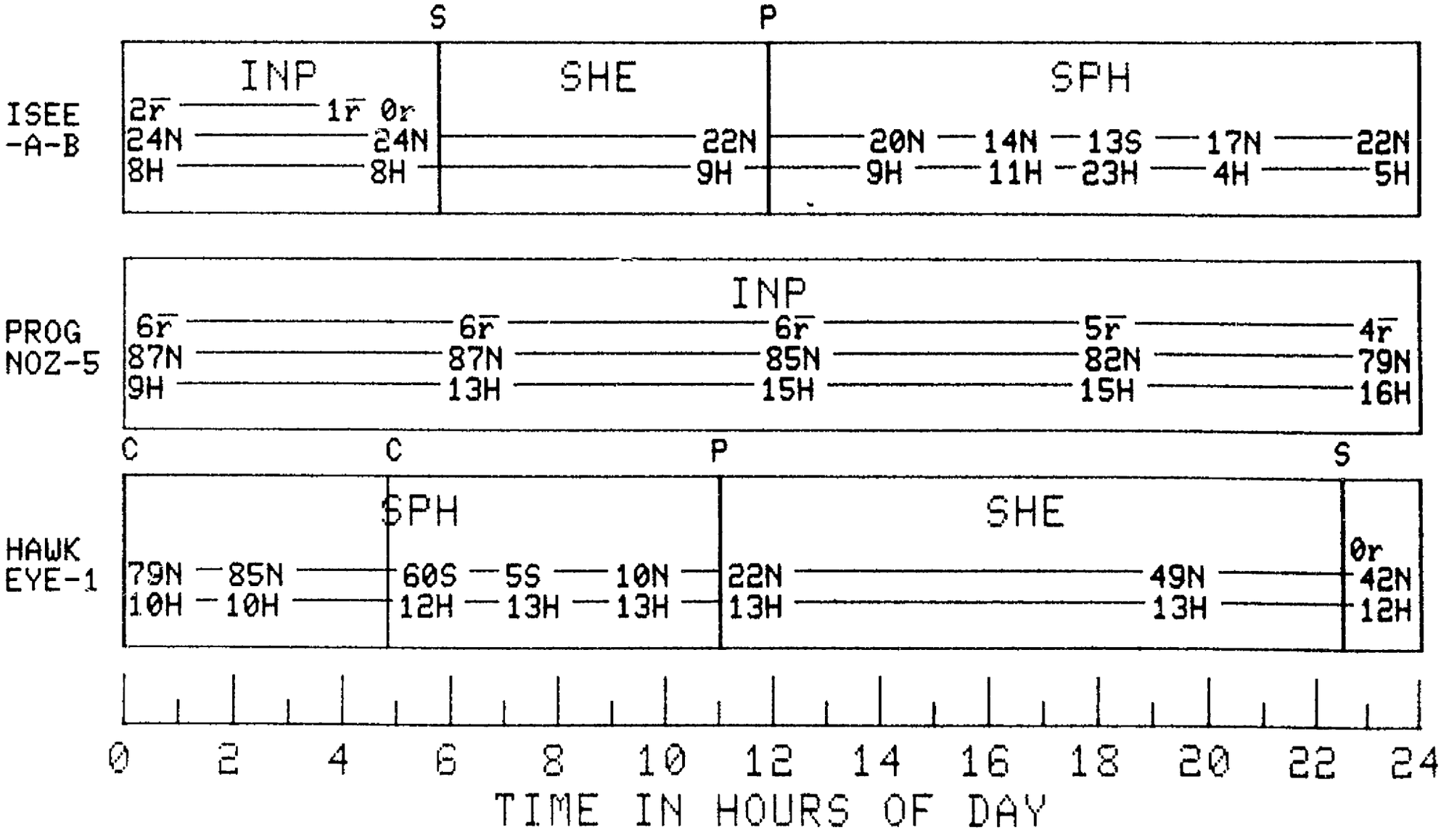
DAY 347 1977


S
IMP-J
INP
SHE
10r 8r 5r 1r 1r
20S 25S 29S 35S 36S
16H 17H 17H 18H 19H
IMP-H
INP
11r 13r 15r 16r 17r
21N 20N 18N 16N 13N
6H 7H 7H 8H 8H
SOL RAD -11B
TAL
6r 5r 4r 4r 4r
0N 2N 3N 4N 5N
22H 23H 24H 1H 2H
SOL RAD -11A
INP
5r 5r 5r 4r 3r
1S 3S 4S 5S 5S
10H 12H 13H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

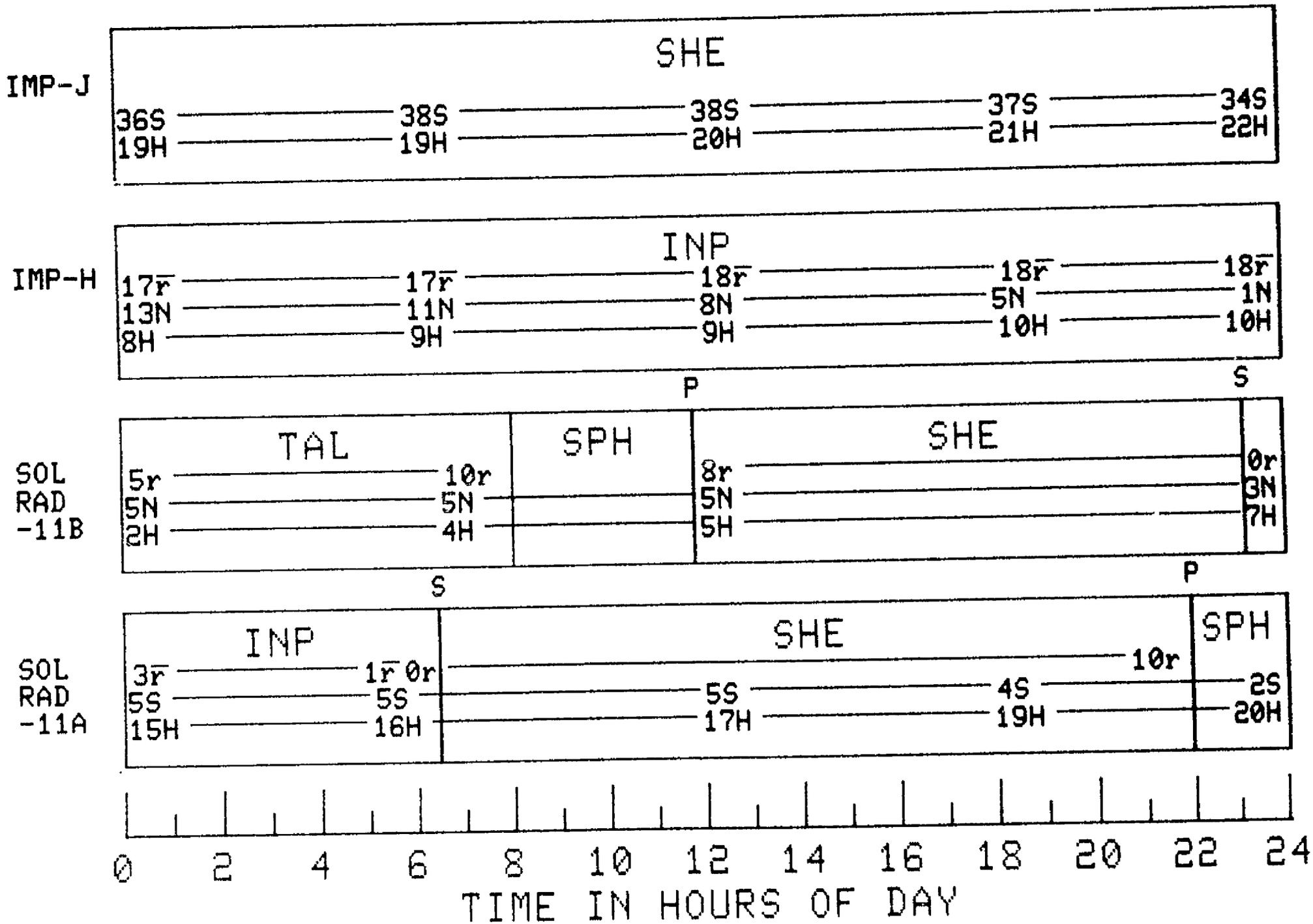
DAY 347 1977

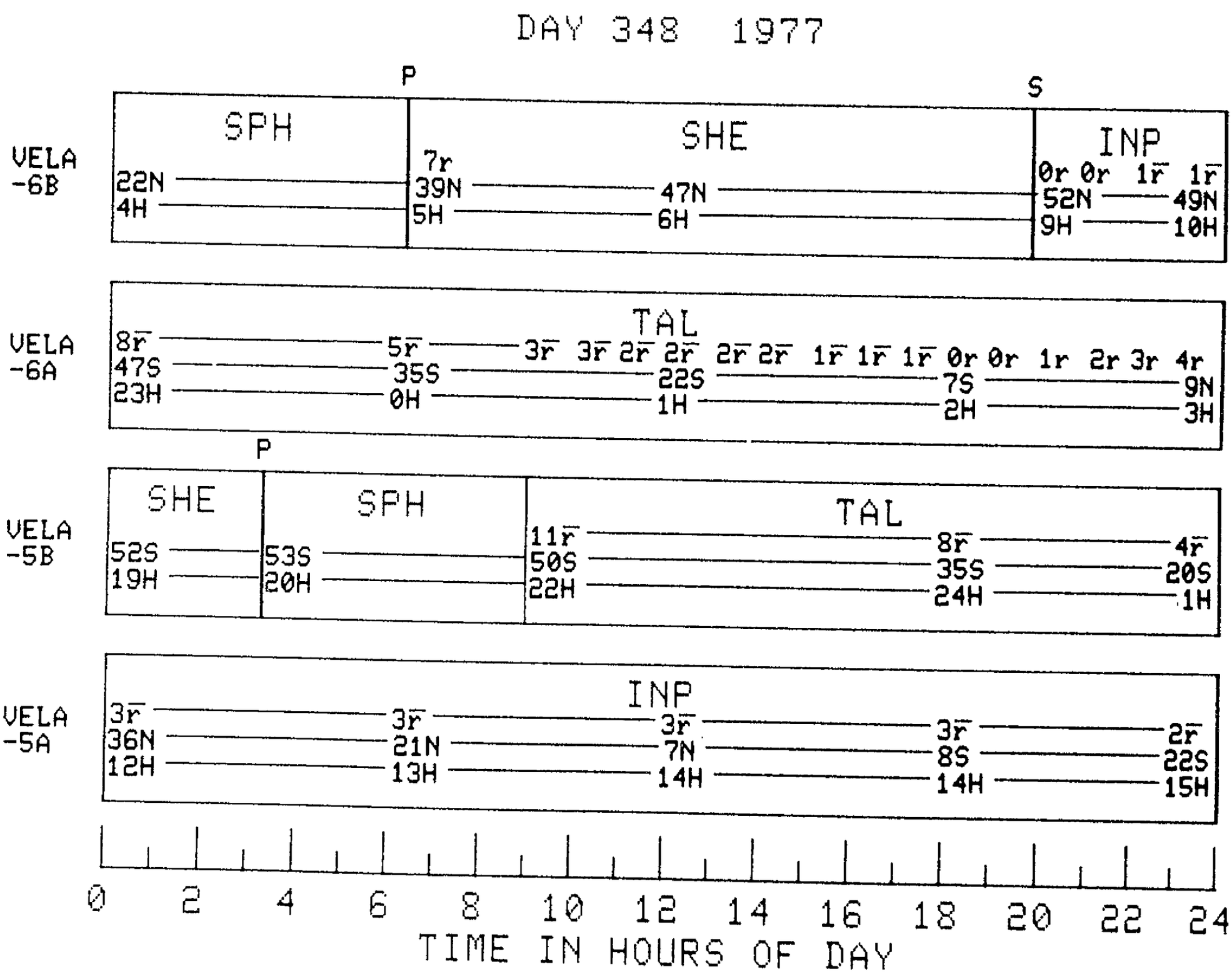

VELA -6B
TAL
7r̄ 3r̄ 2r̄ 1r̄ 0r 1r 2r 2r 3r 3r 3r 3r 3r 4r 7r
37S 24S 9S 7N 22N
0H 1H 2H 3H 4H
P
VELA -6A
SHE
29S 42S
16H 17H
SPH
52S 53S
20H 21H
TAL
10r̄ 9r̄
50S 47S
22H 23H
S
VELA -5B
INP
3r̄ 2r̄ 1r̄ 1r̄ 1r̄ 0r
8S 22S 28S
15H 15H 16H
SHE
7r
45S 52S
17H 19H
P
S
VELA -5A
SHE
7r
39N 50N 53N
5H 6H 9H
INP
0r 1r̄ 1r̄ 1r̄ 1r̄ 3r̄
52N 47N 36N
9H 11H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 347 1977

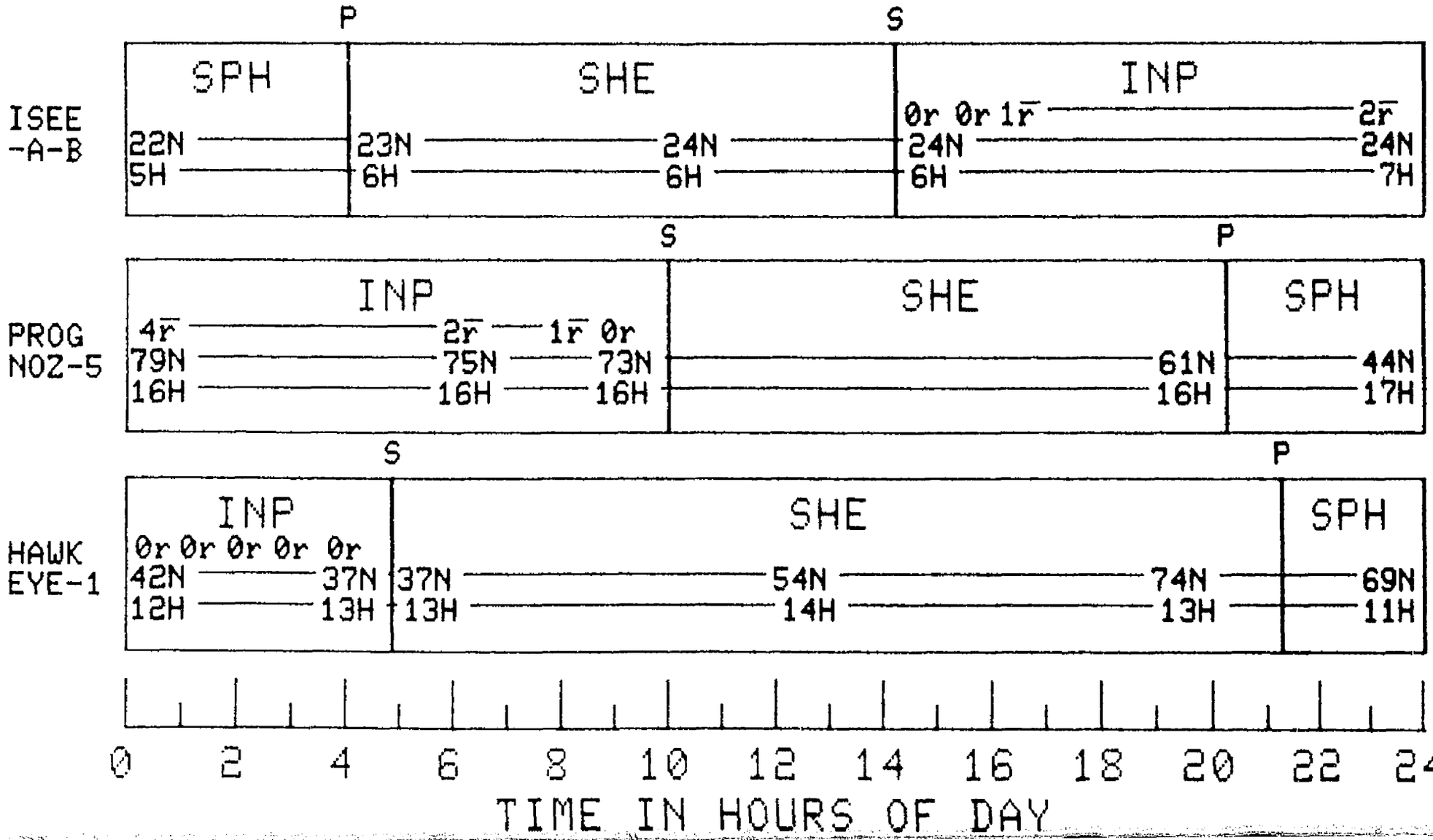

S
P
INP
SHE
SPH
ISEE
-A-B
2r̄ 1r̄ 0r
24N 24N 22N 20N 14N 13S 17N 22N
8H 8H 9H 9H 11H 23H 4H 5H
INP
PROG
NOZ-5
6r̄ 6r̄ 6r̄ 5r̄ 4r̄
87N 87N 85N 82N 79N
9H 13H 15H 15H 16H
C
C
P
S
SPH
SHE
HAWK
EYE-1
79N 85N 60S 5S 10N 22N 49N 0r 42N
10H 10H 12H 13H 13H 13H 13H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 348 1977

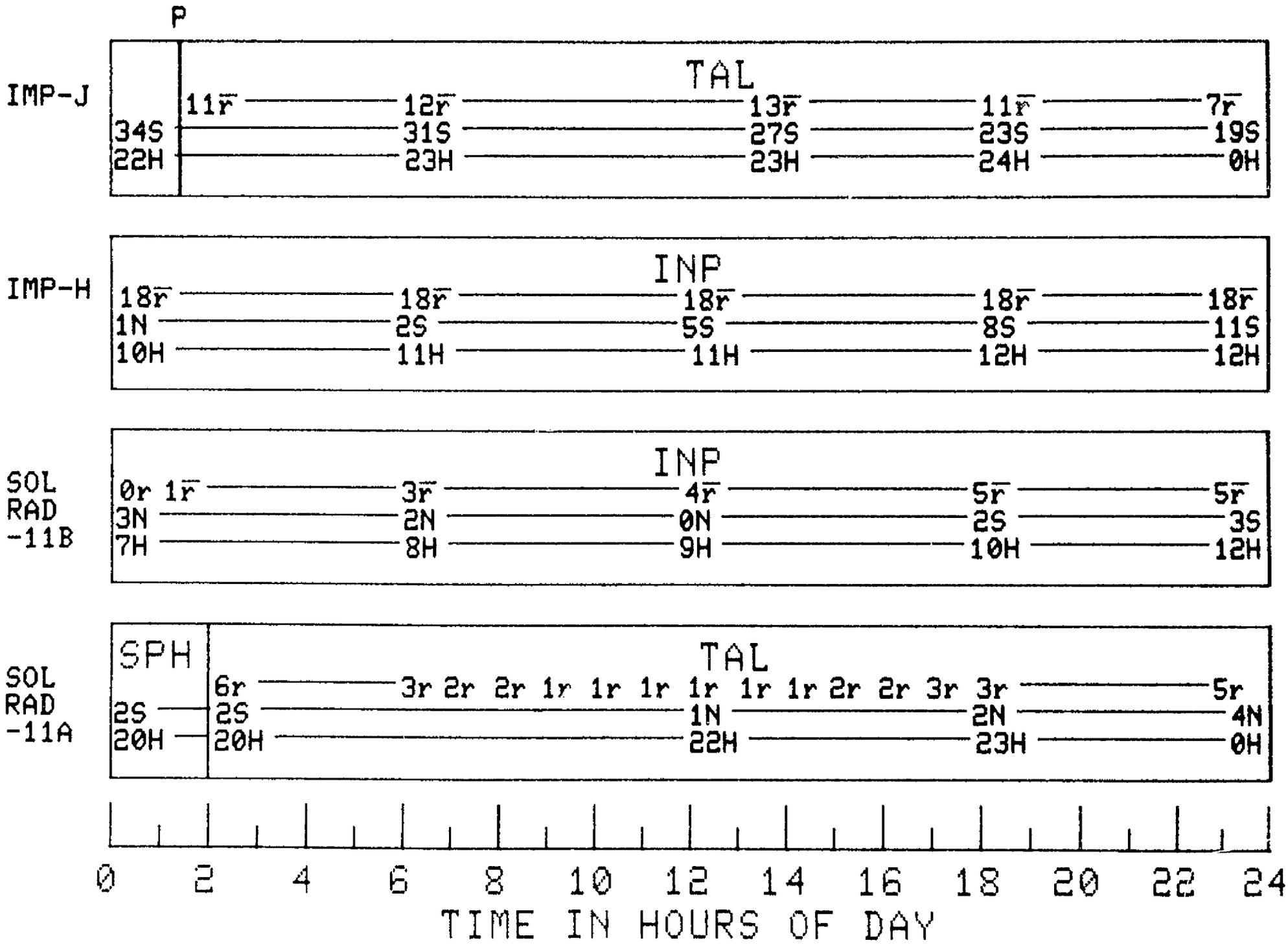

IMP-J
SHE
36S 38S 38S 37S 34S
19H 19H 20H 21H 22H
IMP-H
INP
17r̄ 17r̄ 18r̄ 18r̄ 18r̄
13N 11N 8N 5N 1N
8H 9H 9H 10H 10H
P
S
SOL RAD -11B
TAL
SPH
SHE
5r 10r 8r 0r
5N 5N 5N 3N
2H 4H 5H 7H
S
P
SOL RAD -11A
INP
SHE
SPH
3r̄ 1r̄ 0r 10r
5S 5S 5S 4S 2S
15H 16H 17H 19H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 348 1977
P
S
VELA -6B
SPH
22N
4H
7r
39N
5H
SHE
47N
6H
INP
0r 0r 1r̄ 1r̄
52N 49N
9H 10H
VELA -6A
TAL
8r̄ 5r̄ 3r̄ 3r̄ 2r̄ 2r̄ 2r̄ 2r̄ 1r̄ 1r̄ 1r̄ 0r 0r 1r 2r 3r 4r
47S 35S 22S 7S 9N
23H 0H 1H 2H 3H
P
VELA -5B
SHE
52S
19H
SPH
53S
20H
TAL
11r̄ 8r̄ 4r̄
50S 35S 20S
22H 24H 1H
VELA -5A
INP
3r̄ 3r̄ 3r̄ 3r̄ 2r̄
36N 21N 7N 8S 22S
12H 13H 14H 14H 15H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

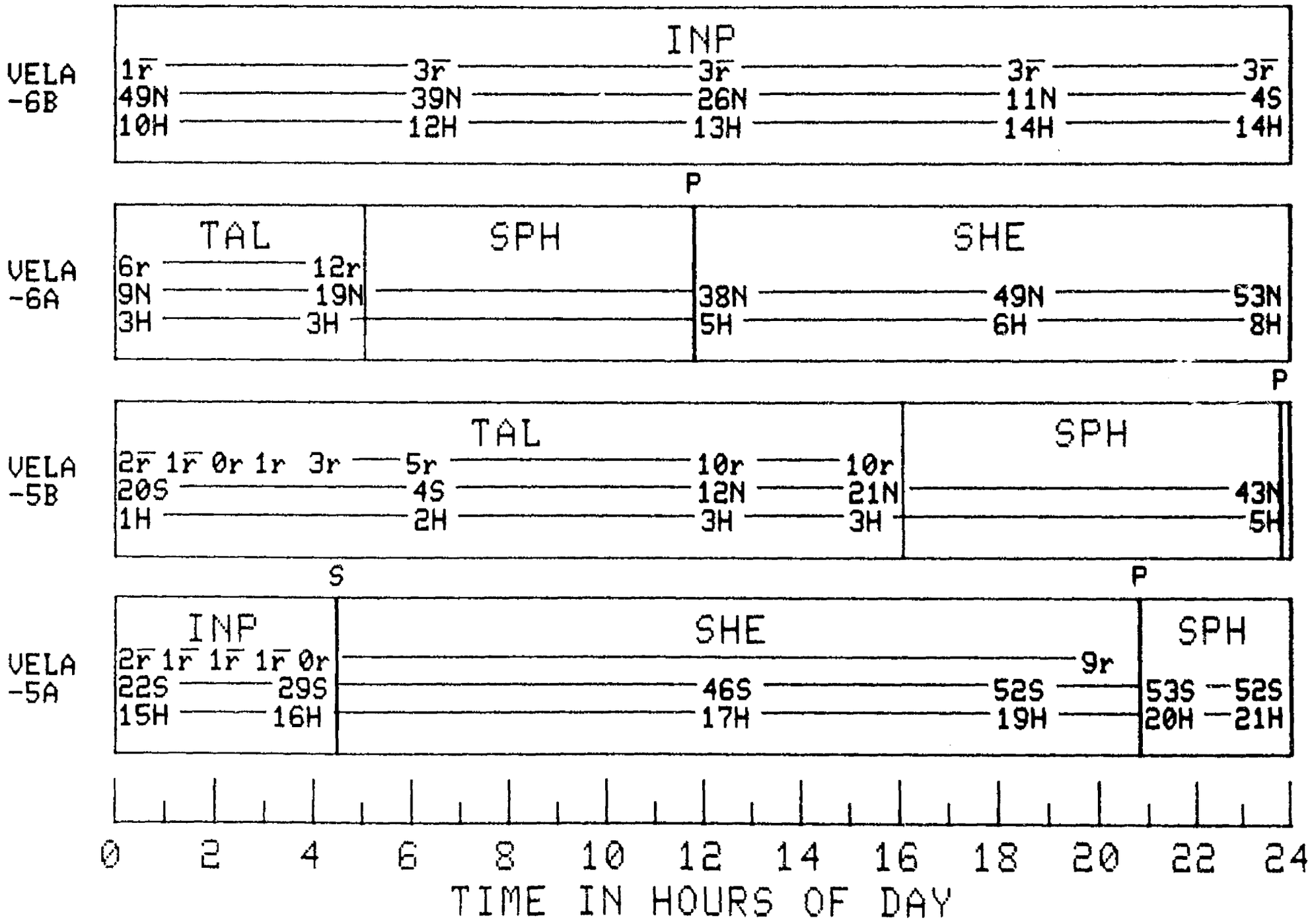
DAY 348 1977


P
S
SPH
SHE
INP
ISEE
-A-B
22N
5H
23N
6H
24N
6H
0r 0r 1r̄
24N
6H
2r̄
24N
7H
S
P
INP
SHE
SPH
PROG
NO2-5
4r̄
79N
16H
2r̄
75N
16H
1r̄ 0r
73N
16H
61N
16H
44N
17H
S
P
INP
SHE
SPH
HAWK
EYE-1
0r 0r 0r 0r 0r
42N
12H
37N
13H
37N
13H
54N
14H
74N
13H
69N
11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

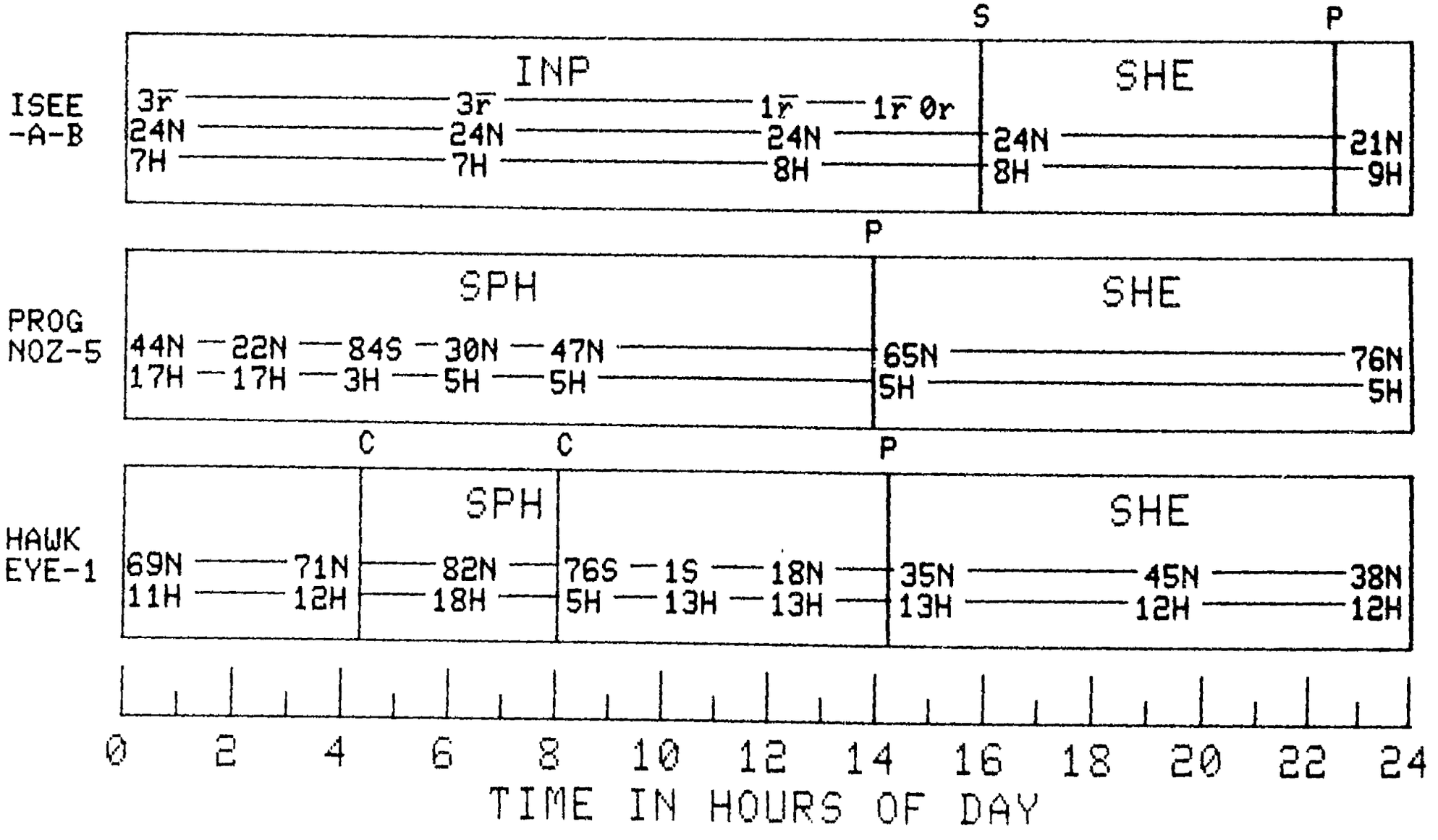
DAY 349 1977


P
IMP-J
TAL
11r 12r 13r 11r 7r
34S 31S 27S 23S 19S
22H 23H 23H 24H 0H
IMP-H
INP
18r 18r 18r 18r 18r
1N 2S 5S 8S 11S
10H 11H 11H 12H 12H
SOL RAD -11B
INP
0r 1r 3r 4r 5r 5r
3N 2N 0N 2S 3S
7H 8H 9H 10H 12H
SOL RAD -11A
SPH
TAL
6r 3r 2r 2r 1r 1r 1r 1r 1r 1r 2r 2r 3r 3r 5r
2S 2S 1N 2N 4N
20H 20H 22H 23H 0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

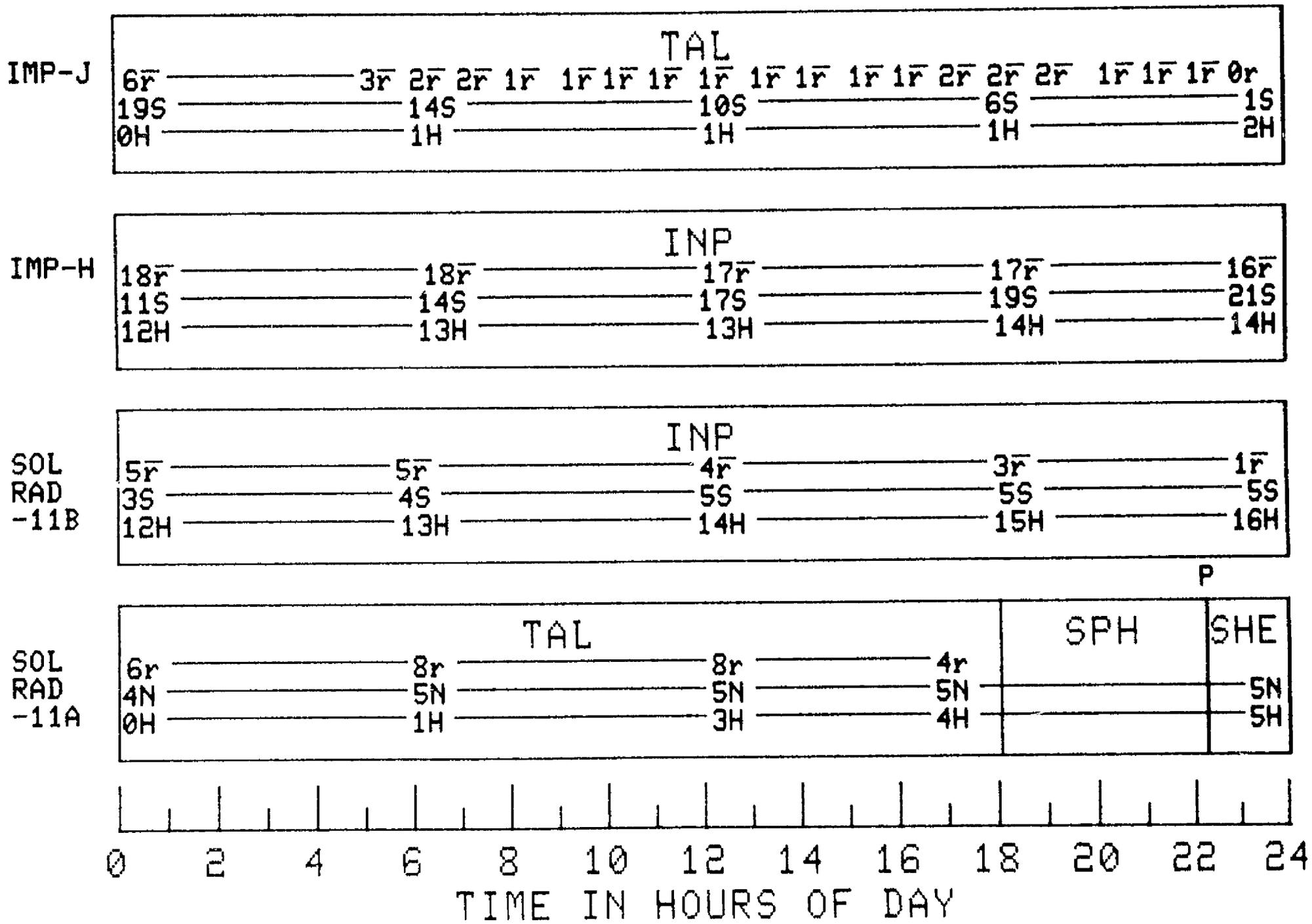
DAY 349 1977

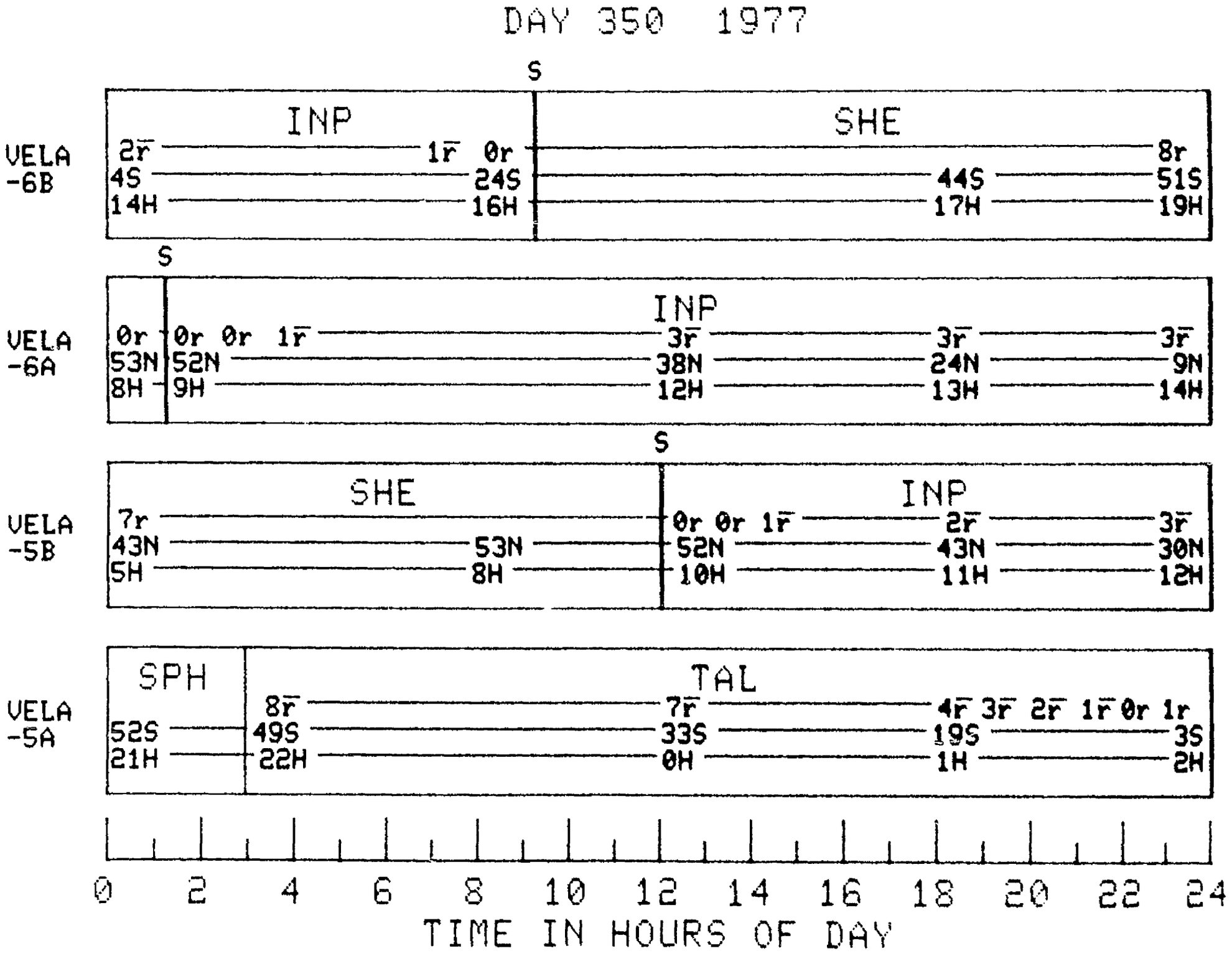

VELA -6B
INP
1r 3r 3r 3r 3r
49N 39N 26N 11N 4S
10H 12H 13H 14H 14H
P
VELA -6A
TAL
6r 12r
9N 19N
3H 3H
SPH
SHE
38N 49N 53N
5H 6H 8H
P
VELA -5B
TAL
2r 1r 0r 1r 3r 5r 10r 10r
20S 4S 12N 21N 43N
1H 2H 3H 3H 5H
SPH
S
P
VELA -5A
INP
2r 1r 1r 1r 0r
22S 29S
15H 16H
SHE
9r
46S 52S
17H 19H
SPH
53S 52S
20H 21H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 349 1977

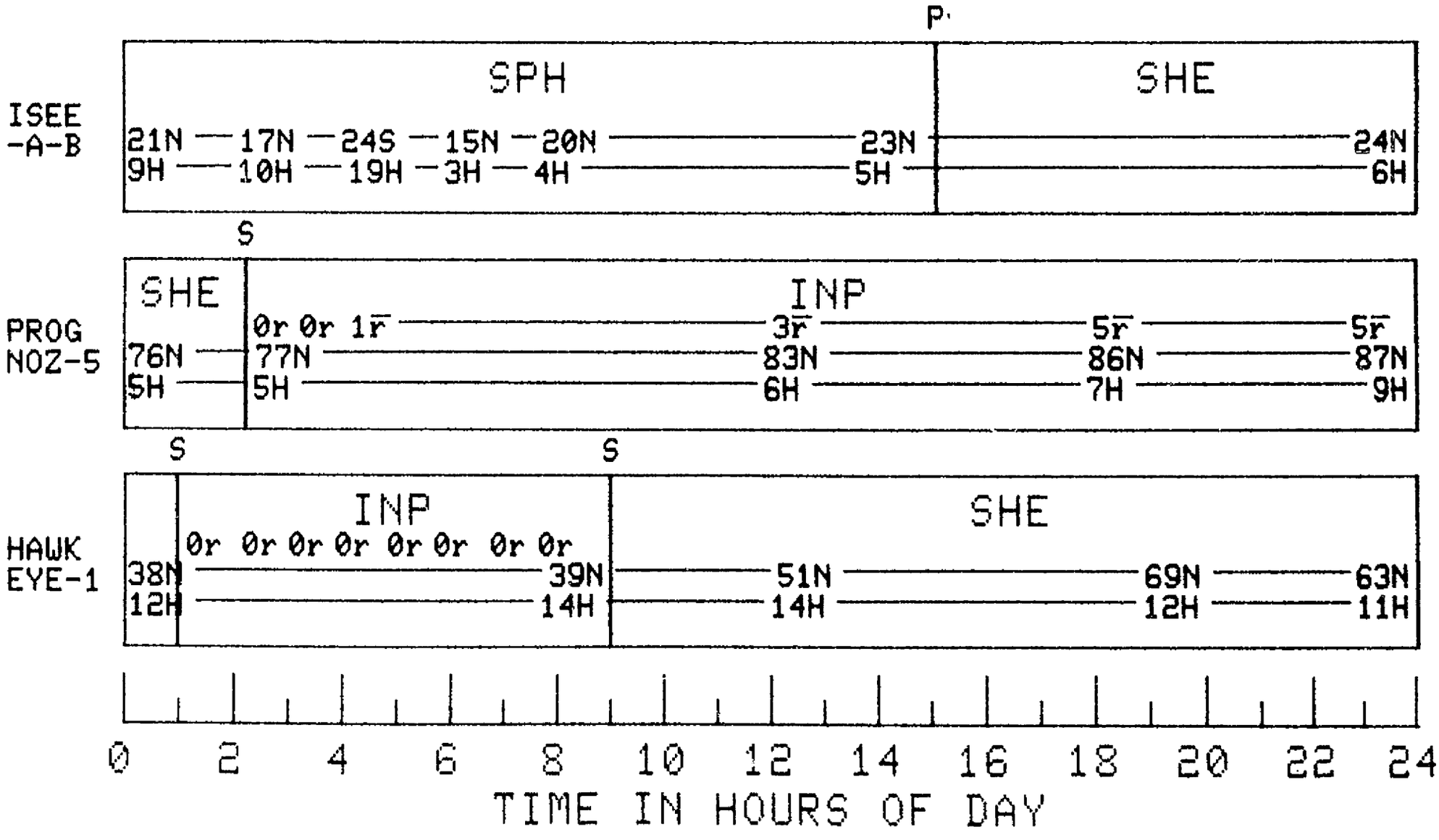

S
P
INP
SHE
ISEE
-A-B
3r 3r 1r 1r 0r
24N 24N 24N 24N 21N
7H 7H 8H 8H 9H
P
SPH
SHE
PROG
NOZ-5
44N 22N 84S 30N 47N 65N 76N
17H 17H 3H 5H 5H 5H 5H
C
C
P
SPH
SHE
HAWK
EYE-1
69N 71N 82N 76S 1S 18N 35N 45N 38N
11H 12H 18H 5H 13H 13H 13H 12H 12H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 350 1977

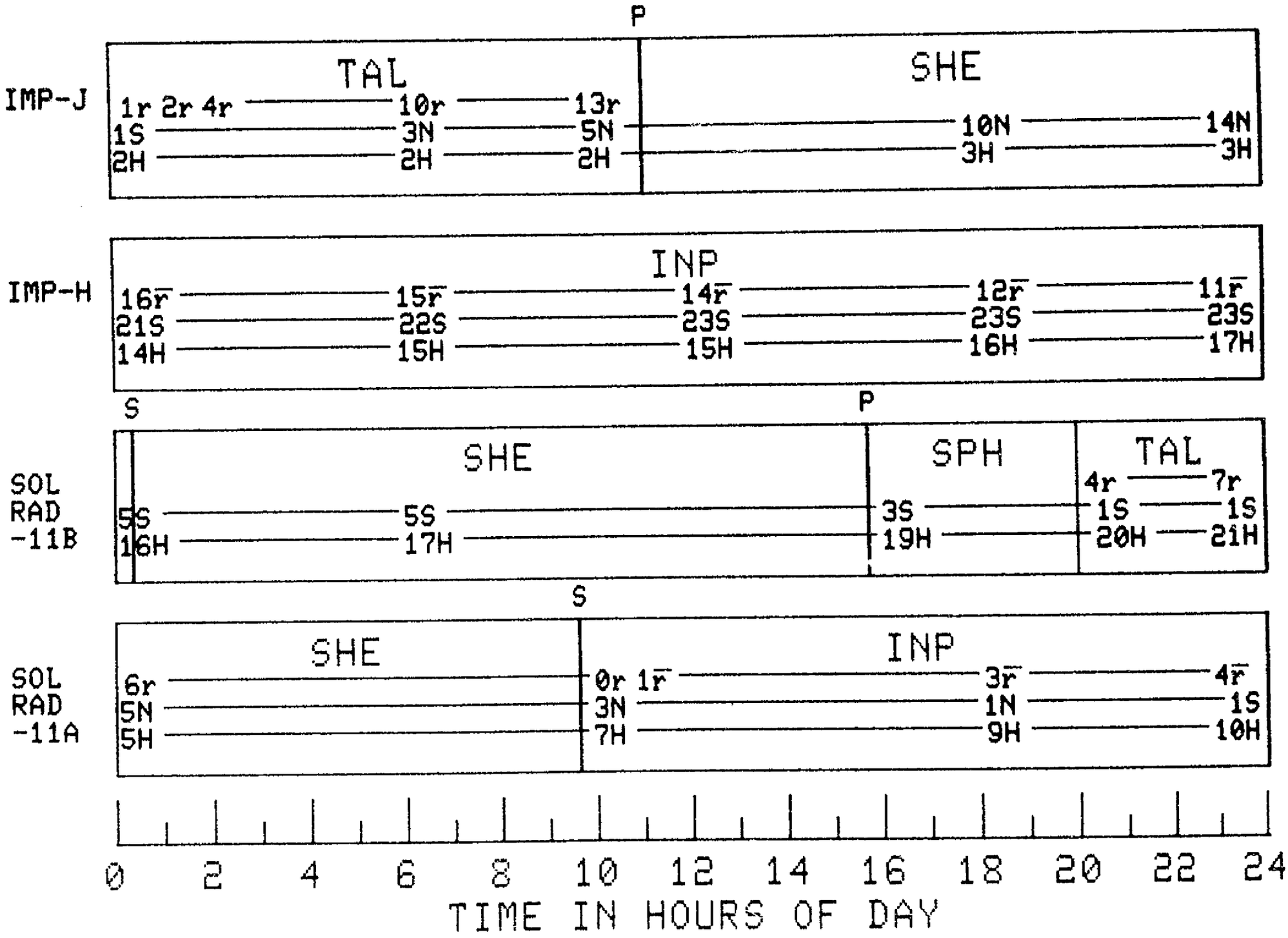

IMP-J
TAL
6r 3r 2r 2r 1r 1r 1r 1r 1r 1r 1r 1r 2r 2r 2r 1r 1r 1r 0r
19S 14S 10S 6S 1S
0H 1H 1H 1H 2H
IMP-H
INP
18r 18r 17r 17r 16r
11S 14S 17S 19S 21S
12H 13H 13H 14H 14H
SOL RAD -11B
INP
5r 5r 4r 3r 1r
3S 4S 5S 5S 5S
12H 13H 14H 15H 16H
P
SOL RAD -11A
TAL
SPH
SHE
6r 8r 8r 4r
4N 5N 5N 5N 5N
0H 1H 3H 4H 5H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 350 1977
VELA -6B
INP
SHE
2r 1r 0r 8r
4S 24S 44S 51S
14H 16H 17H 19H
VELA -6A
INP
0r 0r 0r 1r 3r 3r 3r
53N 52N 38N 24N 9N
8H 9H 12H 13H 14H
VELA -5B
SHE
INP
7r 0r 0r 1r 2r 3r
43N 53N 52N 43N 30N
5H 8H 10H 11H 12H
VELA -5A
SPH
TAL
8r 7r 4r 3r 2r 1r 0r 1r
52S 49S 33S 19S 3S
21H 22H 0H 1H 2H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

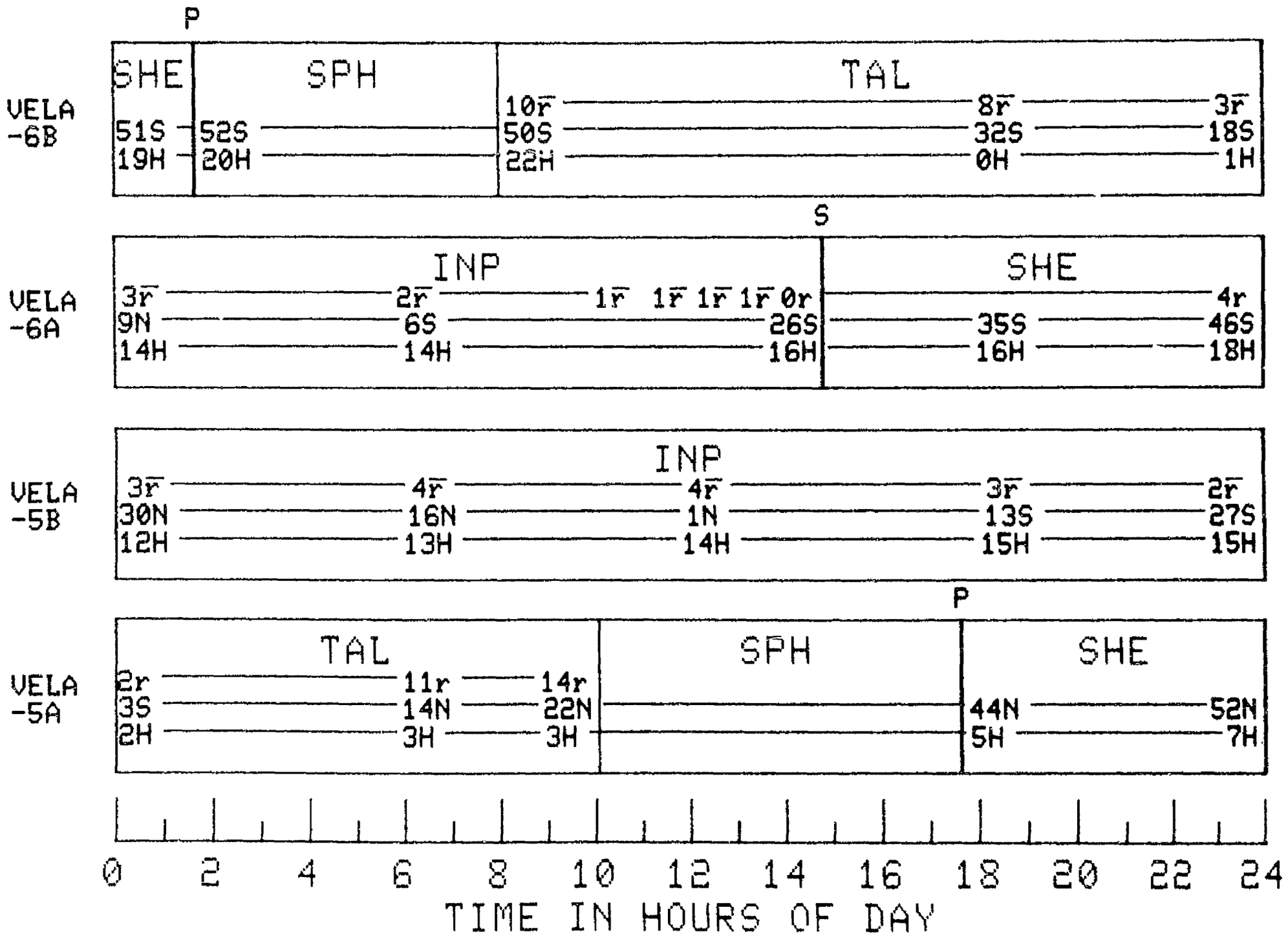
DAY 350 1977


P
SPH
SHE
ISEE
-A-B
21N 17N 24S 15N 20N 23N 24N
9H 10H 19H 3H 4H 5H 6H
S
SHE
INP
PROG
NOZ-5
0r 0r 1r 3r 5r 5r
76N 77N 83N 86N 87N
5H 5H 6H 7H 9H
S
S
INP
SHE
HAWK
EYE-1
0r 0r 0r 0r 0r 0r 0r 0r
38N 39N 51N 69N 63N
12H 14H 14H 12H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

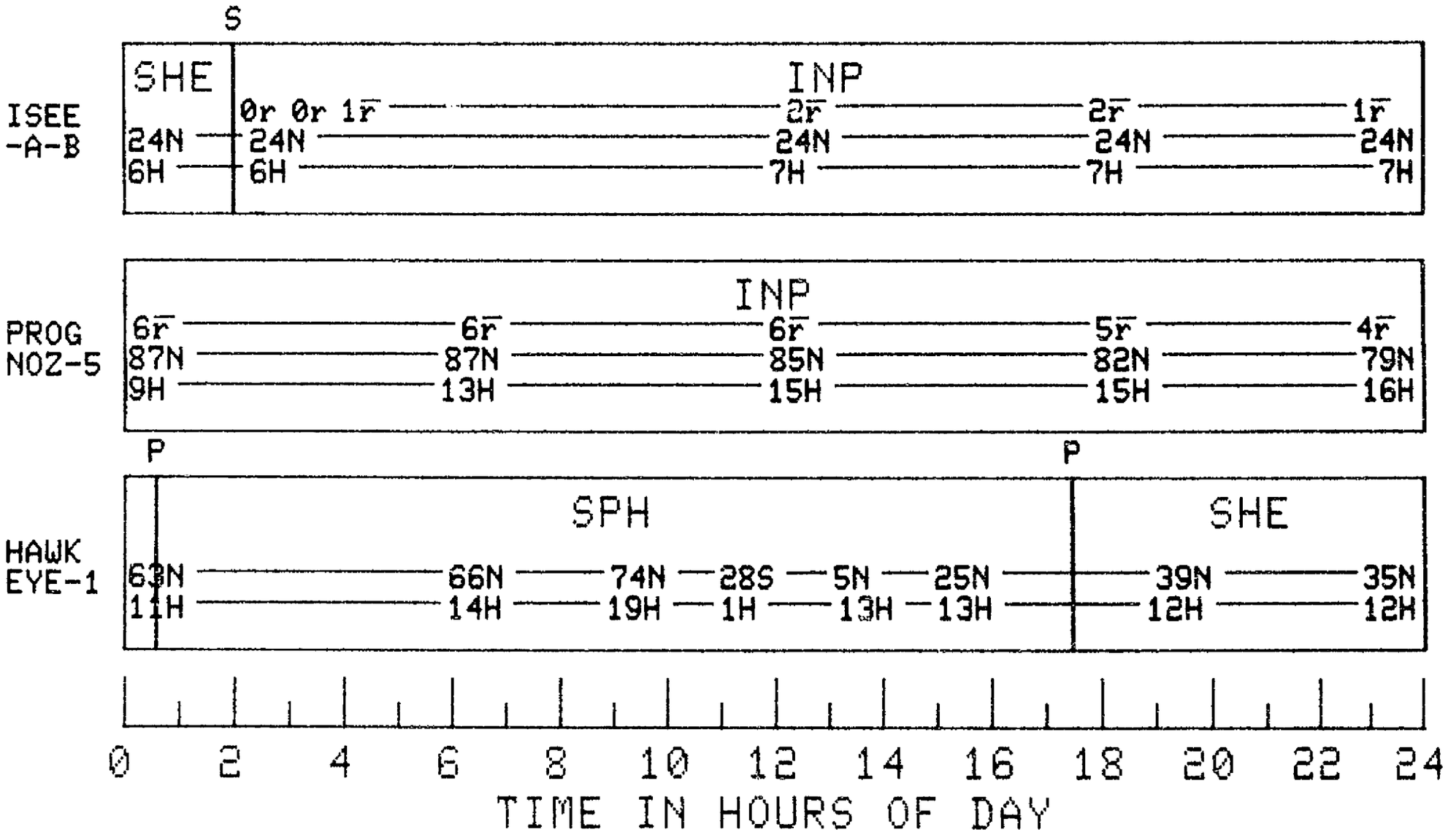
DAY 351 1977


P
IMP-J
TAL
1r 2r 4r
10r
13r
1S
3N
5N
2H
2H
2H
SHE
10N
14N
3H
3H
IMP-H
INP
16r̄
15r̄
14r̄
12r̄
11r̄
21S
22S
23S
23S
23S
14H
15H
15H
16H
17H
S
P
SOL
RAD
-11B
SHE
SPH
TAL
4r
7r
5S
5S
3S
1S
1S
16H
17H
19H
20H
21H
S
SOL
RAD
-11A
SHE
INP
6r
0r
1r̄
3r̄
4r̄
5N
3N
1N
1S
5H
7H
9H
10H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

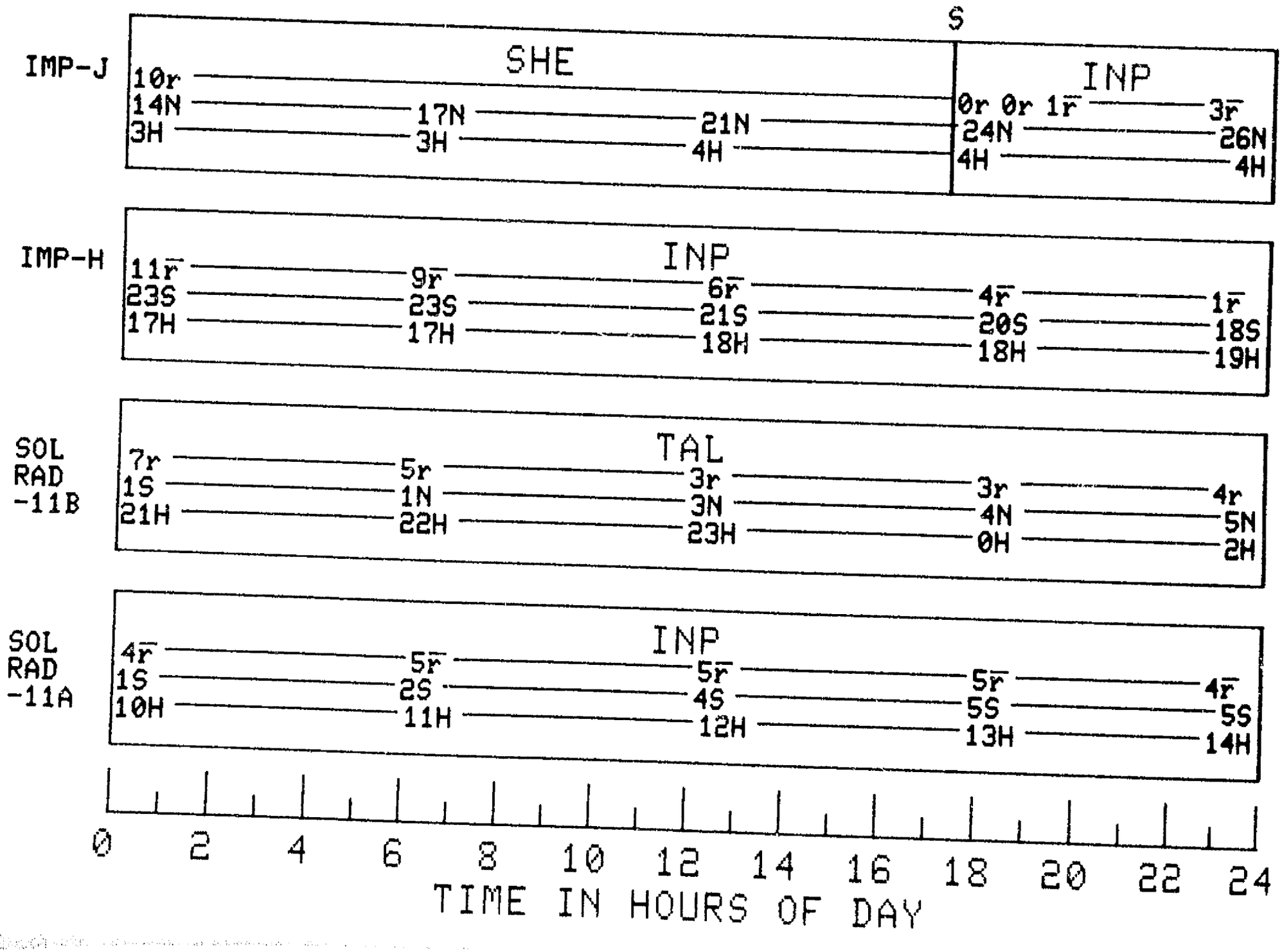
DAY 351 1977


P
SHE
SPH
TAL
VELA -6B
51S 52S 10r 8r 3r
19H 20H 50S 32S 18S
22H 0H 1H
S
INP
SHE
VELA -6A
3r 2r 1r 1r 1r 1r 0r 4r
9N 6S 26S 35S 46S
14H 14H 16H 16H 18H
INP
VELA -5B
3r 4r 4r 3r 2r
30N 16N 1N 13S 27S
12H 13H 14H 15H 15H
P
TAL
SPH
SHE
VELA -5A
2r 11r 14r
3S 14N 22N 44N 52N
2H 3H 3H 5H 7H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

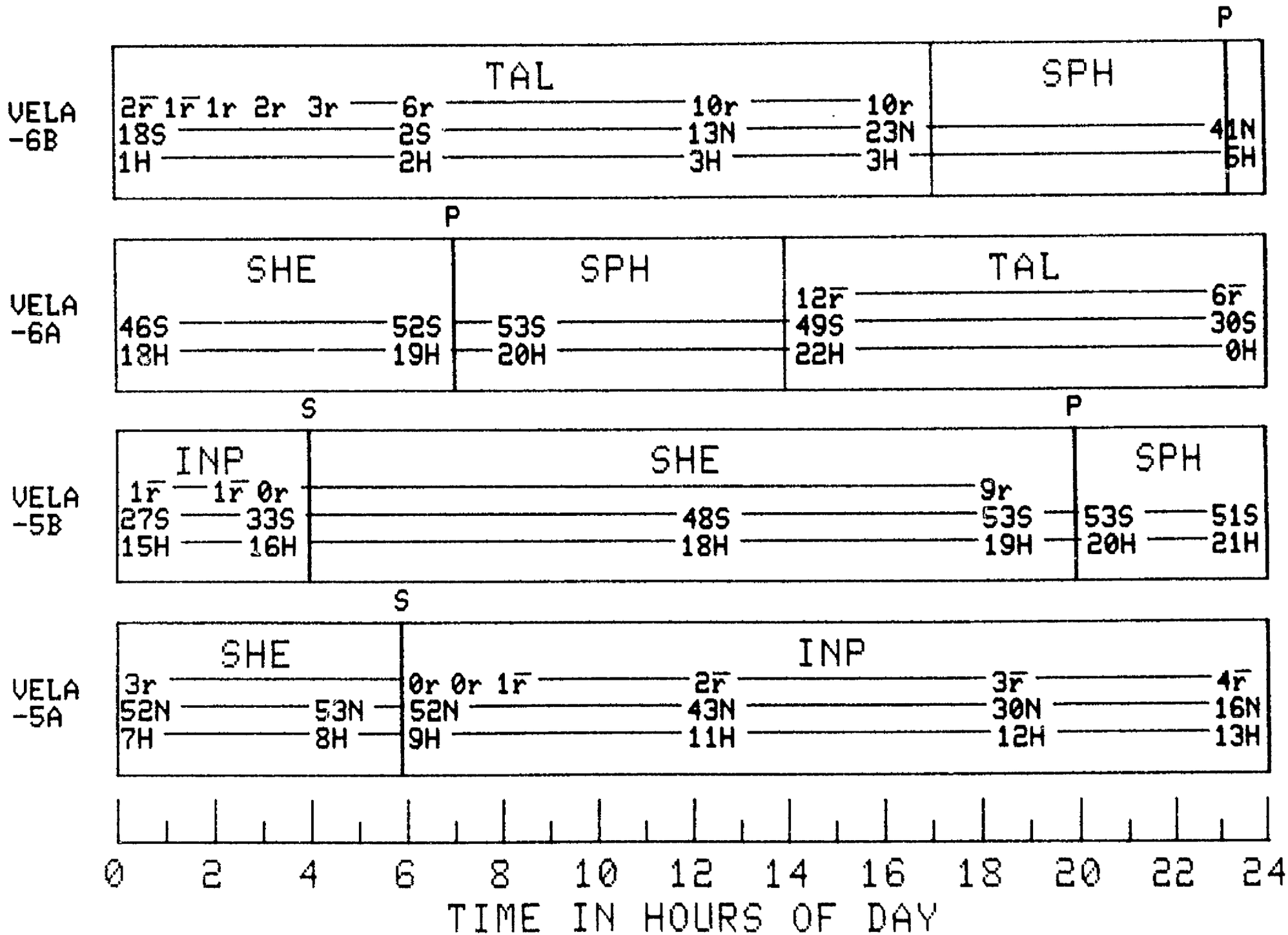
DAY 351 1977


S
SHE
INP
ISEE
-A-B
0r 0r 1r
2r
2r
1r
24N
24N
24N
24N
24N
6H
6H
7H
7H
7H
INP
PROG
NOZ-5
6r
6r
6r
5r
4r
87N
87N
85N
82N
79N
9H
13H
15H
15H
16H
P
P
SPH
SHE
HAWK
EYE-1
63N
66N
74N
28S
5N
25N
39N
35N
11H
14H
19H
1H
13H
13H
12H
12H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

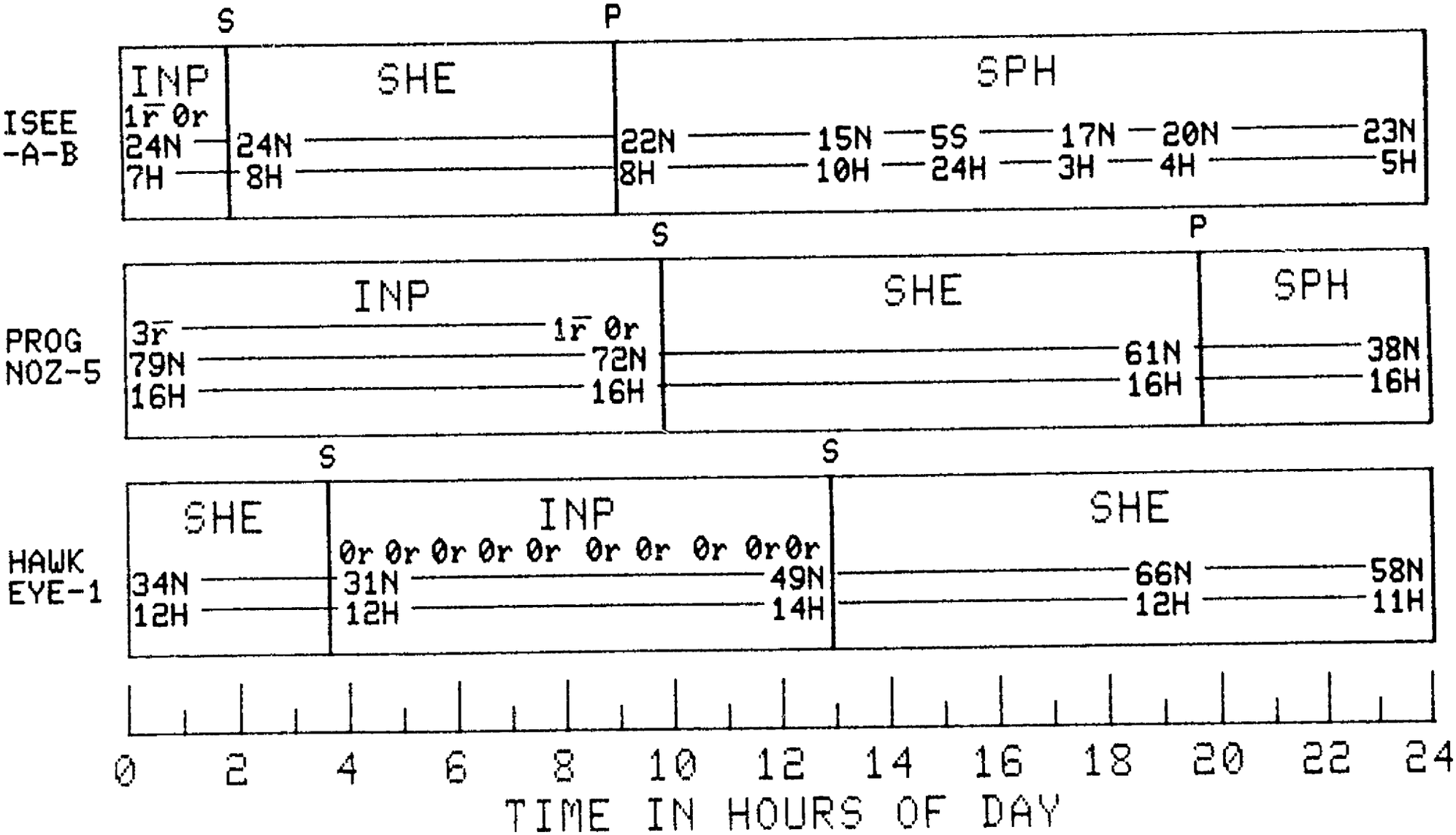
DAY 352 1977

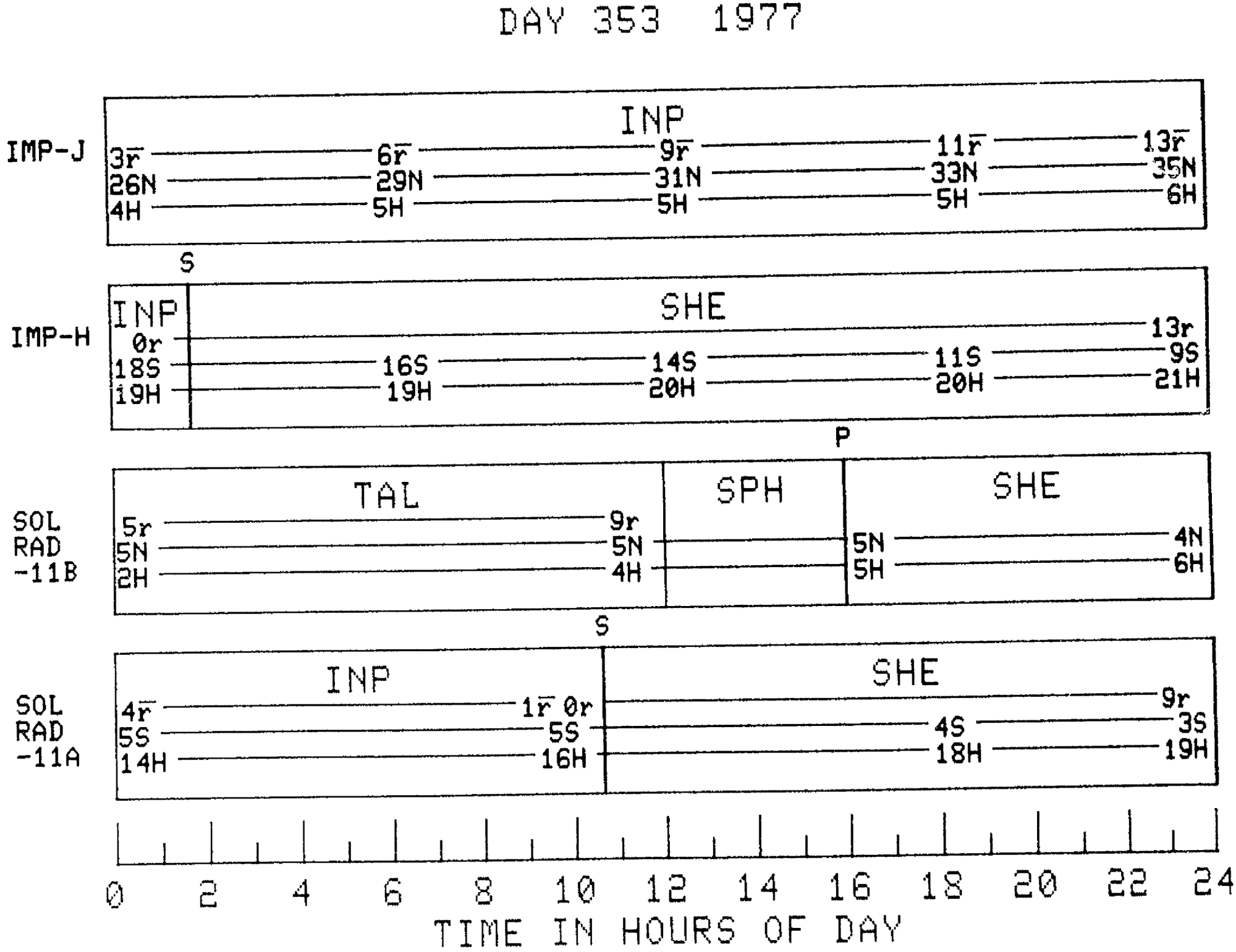

IMP-J
SHE
INP
S
10r
14N
3H
17N
3H
21N
4H
0r 0r 1r̄
24N
4H
3r̄
26N
4H
IMP-H
INP
11r̄
23S
17H
9r̄
23S
17H
6r̄
21S
18H
4r̄
20S
18H
1r̄
18S
19H
SOL RAD -11B
TAL
7r
1S
21H
5r
1N
22H
3r
3N
23H
3r
4N
0H
4r
5N
2H
SOL RAD -11A
INP
4r̄
1S
10H
5r̄
2S
11H
5r̄
4S
12H
5r̄
5S
13H
4r̄
5S
14H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 352 1977

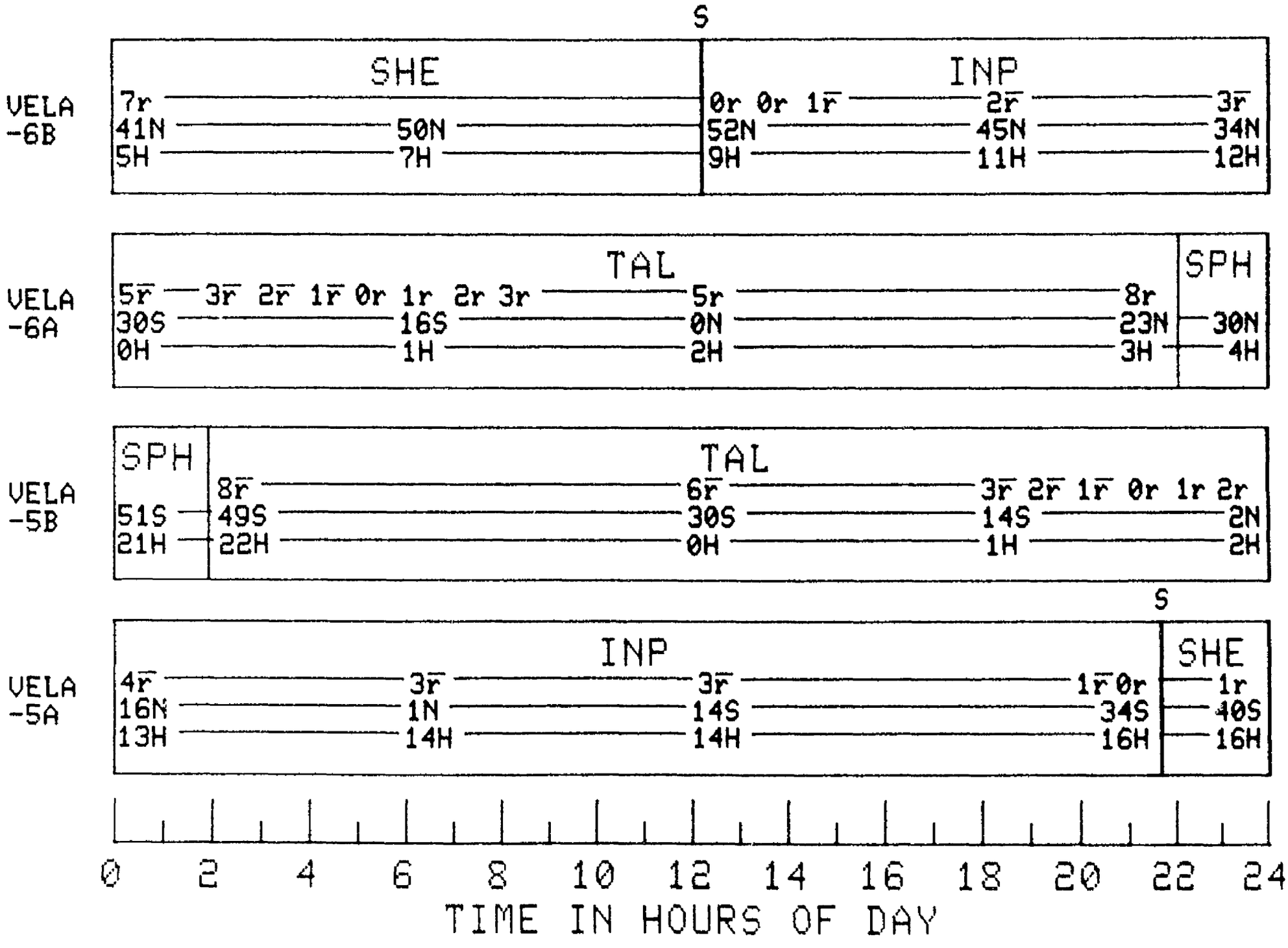

P
TAL
SPH
VELA -6B
2r 1r 1r 2r 3r
6r
10r
10r
18S
2S
13N
23N
41N
1H
2H
3H
3H
5H
P
SHE
SPH
TAL
VELA -6A
46S
52S
53S
12r
6r
49S
30S
22H
19H
20H
22H
0H
S
P
INP
SHE
SPH
VELA -5B
1r
1r 0r
9r
27S
33S
48S
53S
53S
51S
15H
16H
18H
19H
20H
21H
S
SHE
INP
VELA -5A
3r
0r 0r 1r
2r
3r
4r
52N
53N
52N
43N
30N
16N
7H
8H
9H
11H
12H
13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 352 1977

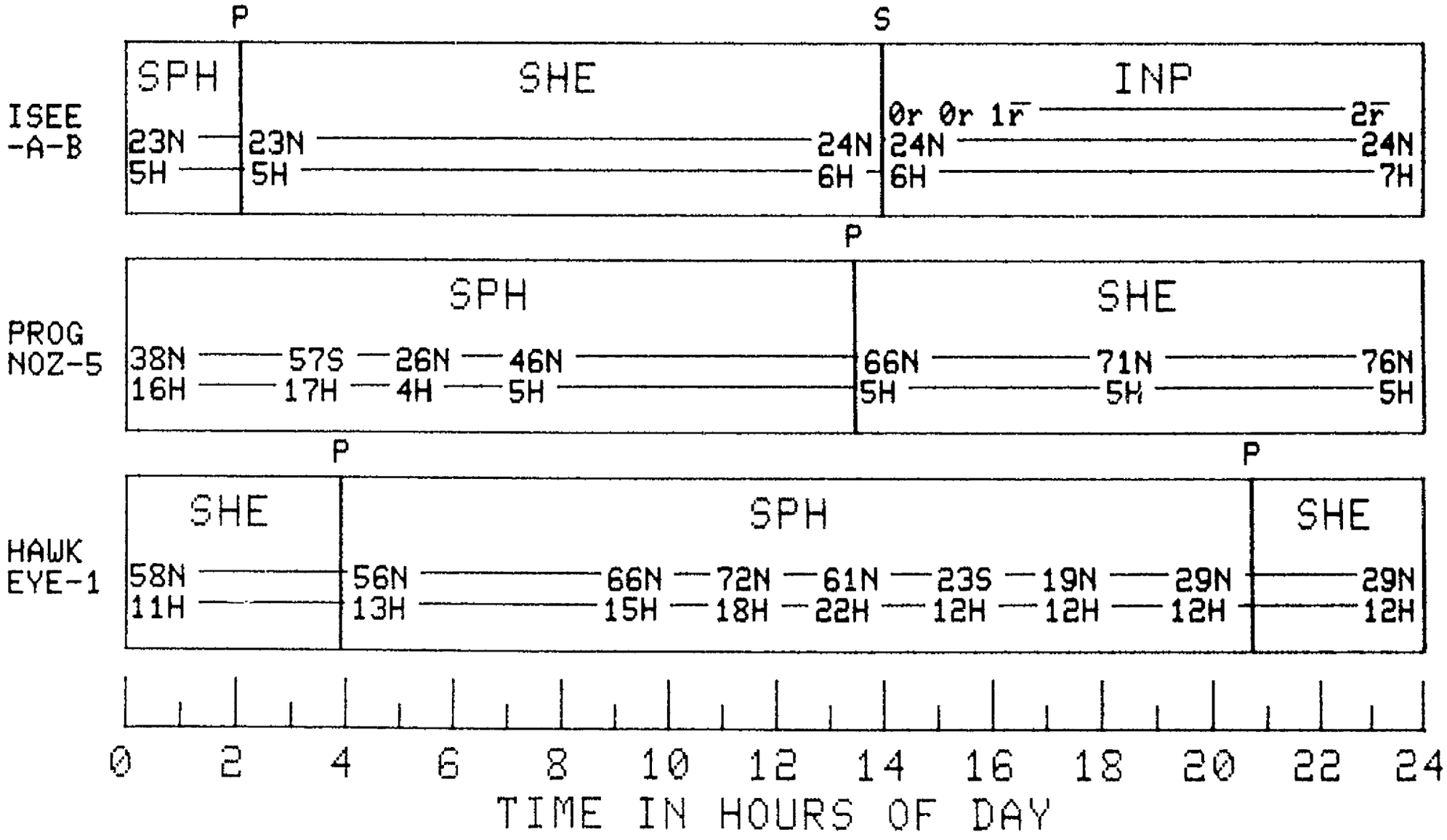

S
P
INP
SHE
SPH
ISEE
-A-B
1r̄ 0r
24N
7H
24N
8H
22N
8H
15N
10H
5S
24H
17N
3H
20N
4H
23N
5H
S
P
INP
SHE
SPH
PROG
NOZ-5
3r̄
79N
16H
1r̄ 0r
72N
16H
61N
16H
38N
16H
S
S
SHE
INP
SHE
HAWK
EYE-1
34N
12H
0r 0r 0r 0r 0r 0r 0r 0r 0r 0r
31N
12H
49N
14H
66N
12H
58N
11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 353 1977
IMP-J
INP
3r 6r 9r 11r 13r
26N 29N 31N 33N 35N
4H 5H 5H 5H 6H
S
IMP-H
INP
0r
18S 16S 14S 11S 9S
19H 19H 20H 20H 21H
SHE
13r
21H
P
SOL RAD -11B
TAL
5r 9r
5N 5N
2H 4H
SPH
5N
5H
SHE
4N
6H
S
SOL RAD -11A
INP
4r 1r 0r
5S 5S
14H 16H
SHE
9r
4S 3S
18H 19H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

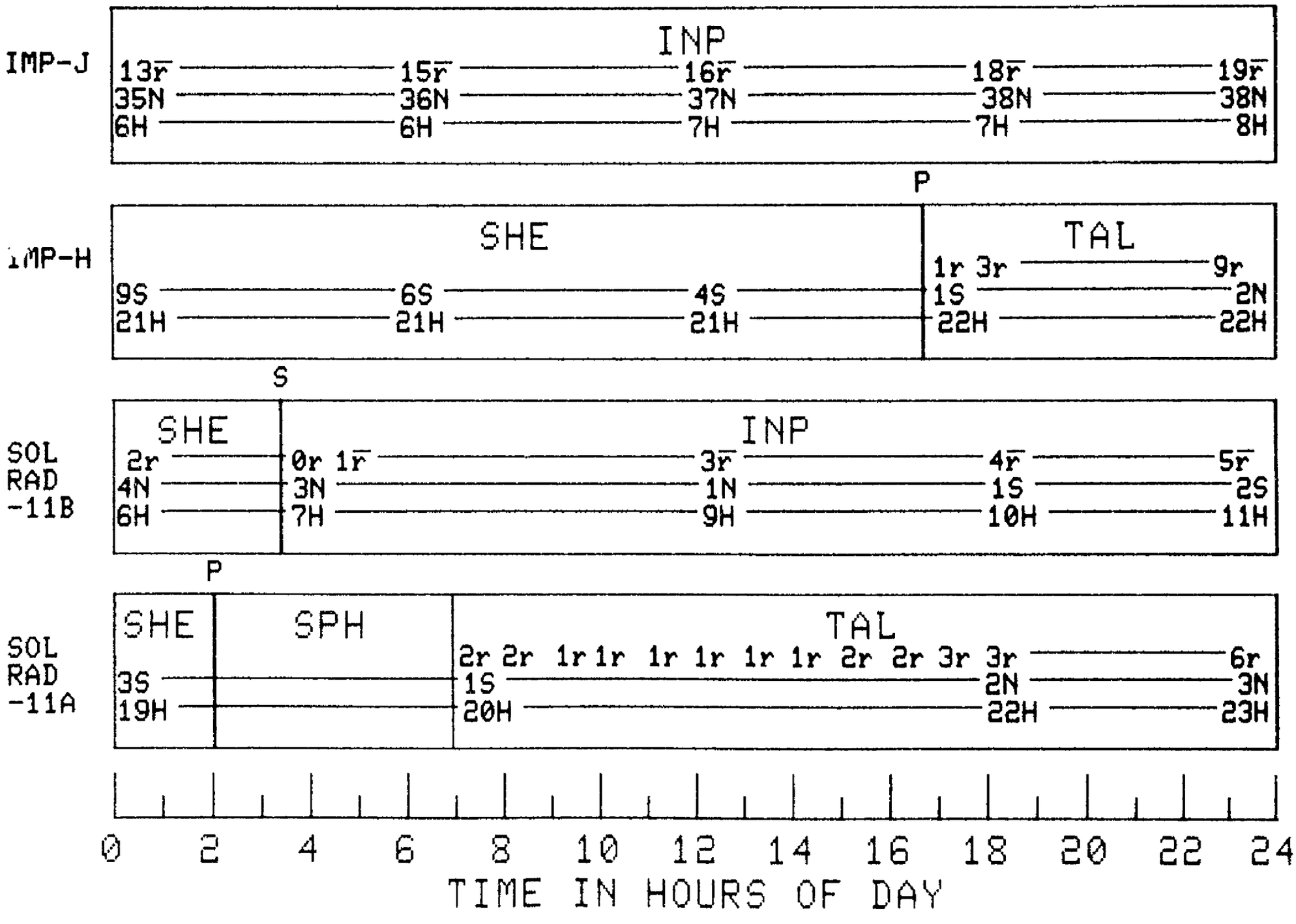
DAY 353 1977


S
SHE
INP
VELA -6B
7r
41N 50N
5H 7H
0r 0r 1r 2r 3r
52N 45N 34N
9H 11H 12H
TAL
SPH
VELA -6A
5r 3r 2r 1r 0r 1r 2r 3r 5r 8r
30S 16S 0N 23N 30N
0H 1H 2H 3H 4H
SPH
TAL
VELA -5B
8r 6r 3r 2r 1r 0r 1r 2r
51S 49S 30S 14S 2N
21H 22H 0H 1H 2H
S
INP
SHE
VELA -5A
4r 3r 3r 1r 0r 1r
16N 1N 14S 34S 40S
13H 14H 14H 16H 16H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

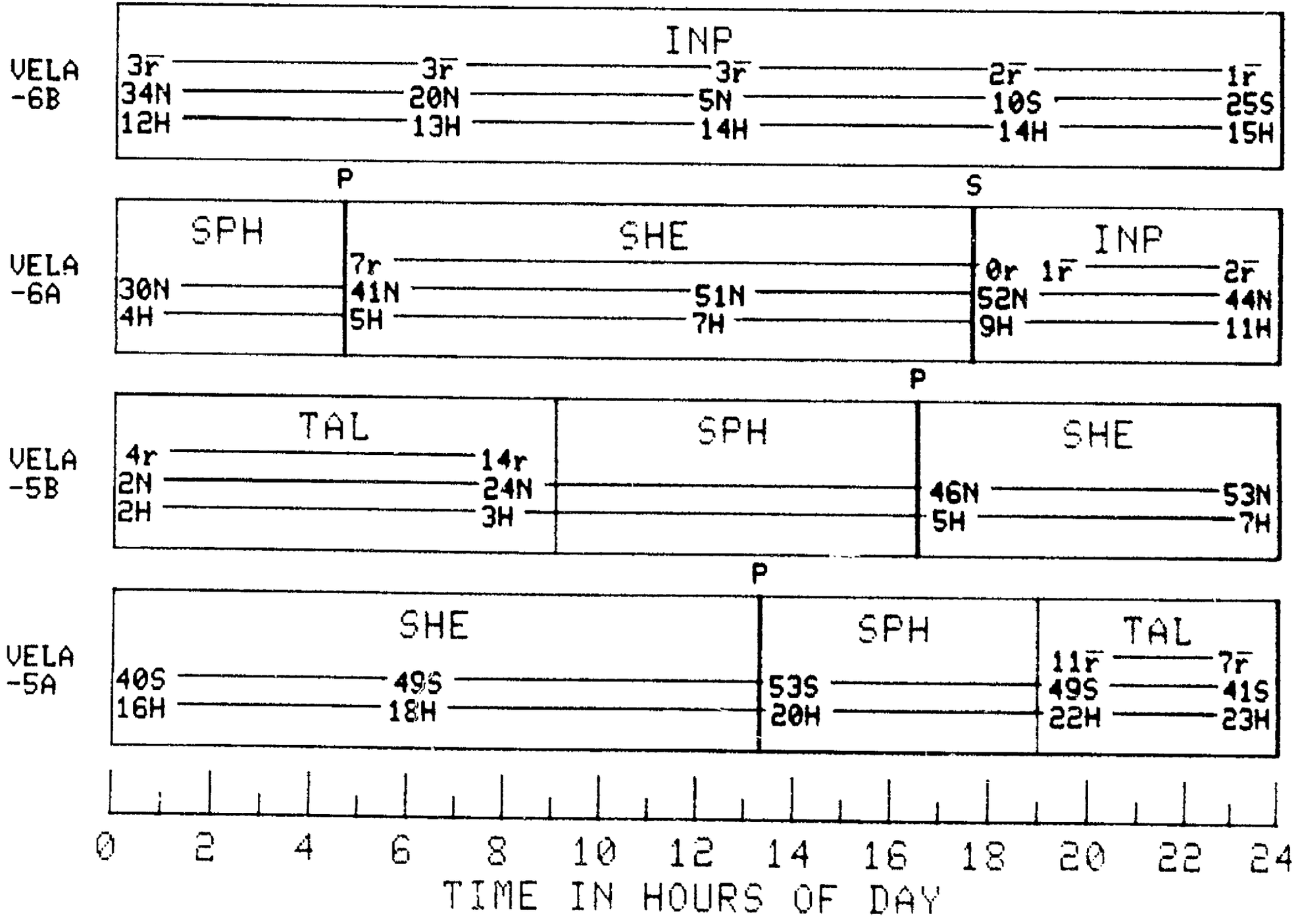
DAY 353 1977


P
S
SPH
SHE
INP
ISEE
-A-B
23N
5H
23N
5H
24N
6H
0r 0r 1r̄
2r̄
24N
24N
6H
7H
P
SPH
SHE
PROG
NOZ-5
38N
16H
57S
17H
26N
4H
46N
5H
66N
5H
71N
5H
76N
5H
P
P
SHE
SPH
SHE
HAWK
EYE-1
58N
11H
56N
13H
66N
15H
72N
18H
61N
22H
23S
12H
19N
12H
29N
12H
29N
12H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

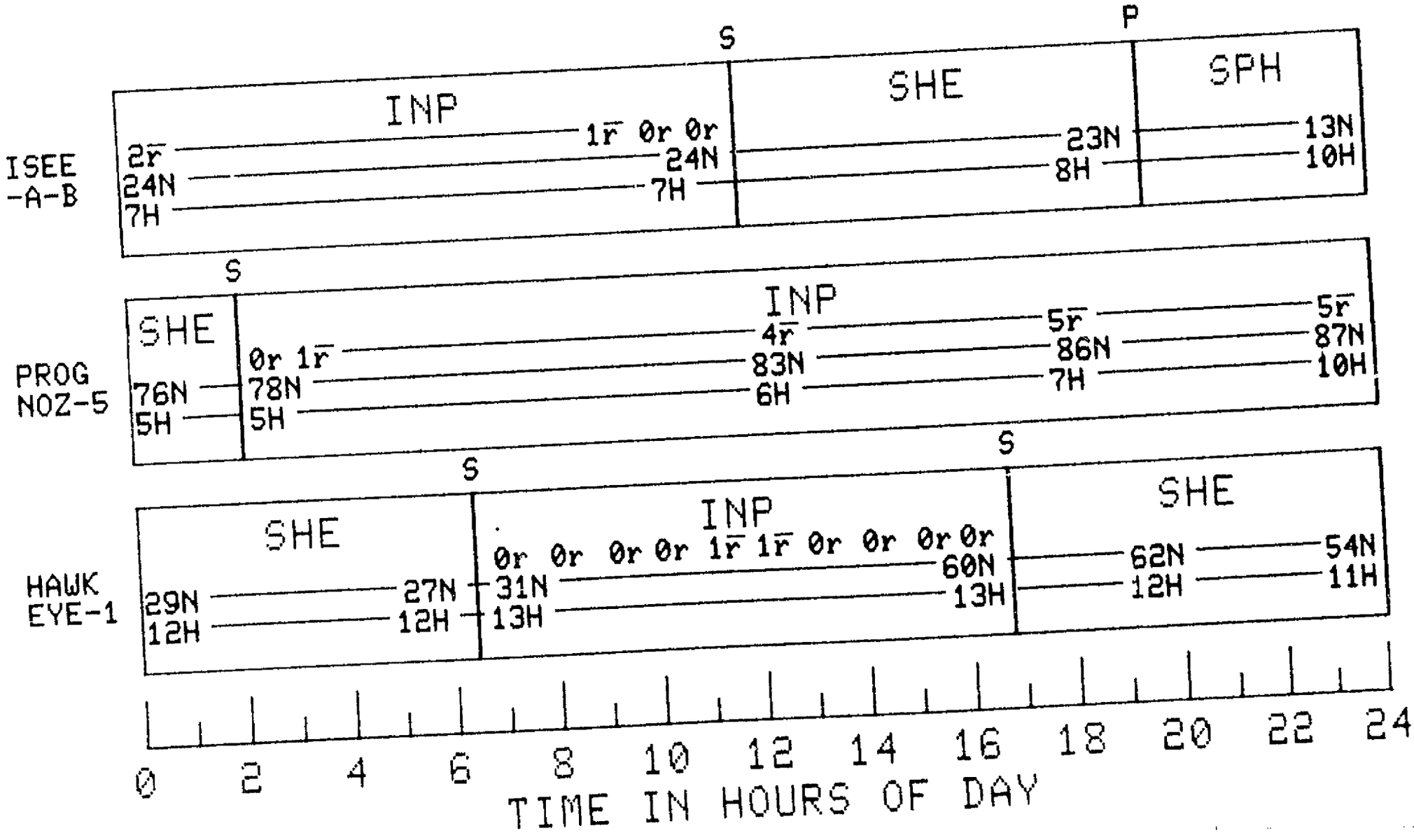
DAY 354 1977


IMP-J
INP
13r 15r 16r 18r 19r
35N 36N 37N 38N 38N
6H 6H 7H 7H 8H
P
IMP-H
SHE
TAL
9S 6S 4S
21H 21H 21H
1r 3r 9r
1S 2N
22H 22H
S
SOL RAD -11B
SHE
INP
2r 0r 1r 3r 4r 5r
4N 3N 1N 1S 2S
6H 7H 9H 10H 11H
P
SOL RAD -11A
SHE
SPH
TAL
3S 1S 2N 3N
19H 20H 22H 23H
2r 2r 1r 1r 1r 1r 1r 1r 2r 2r 3r 3r 6r
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

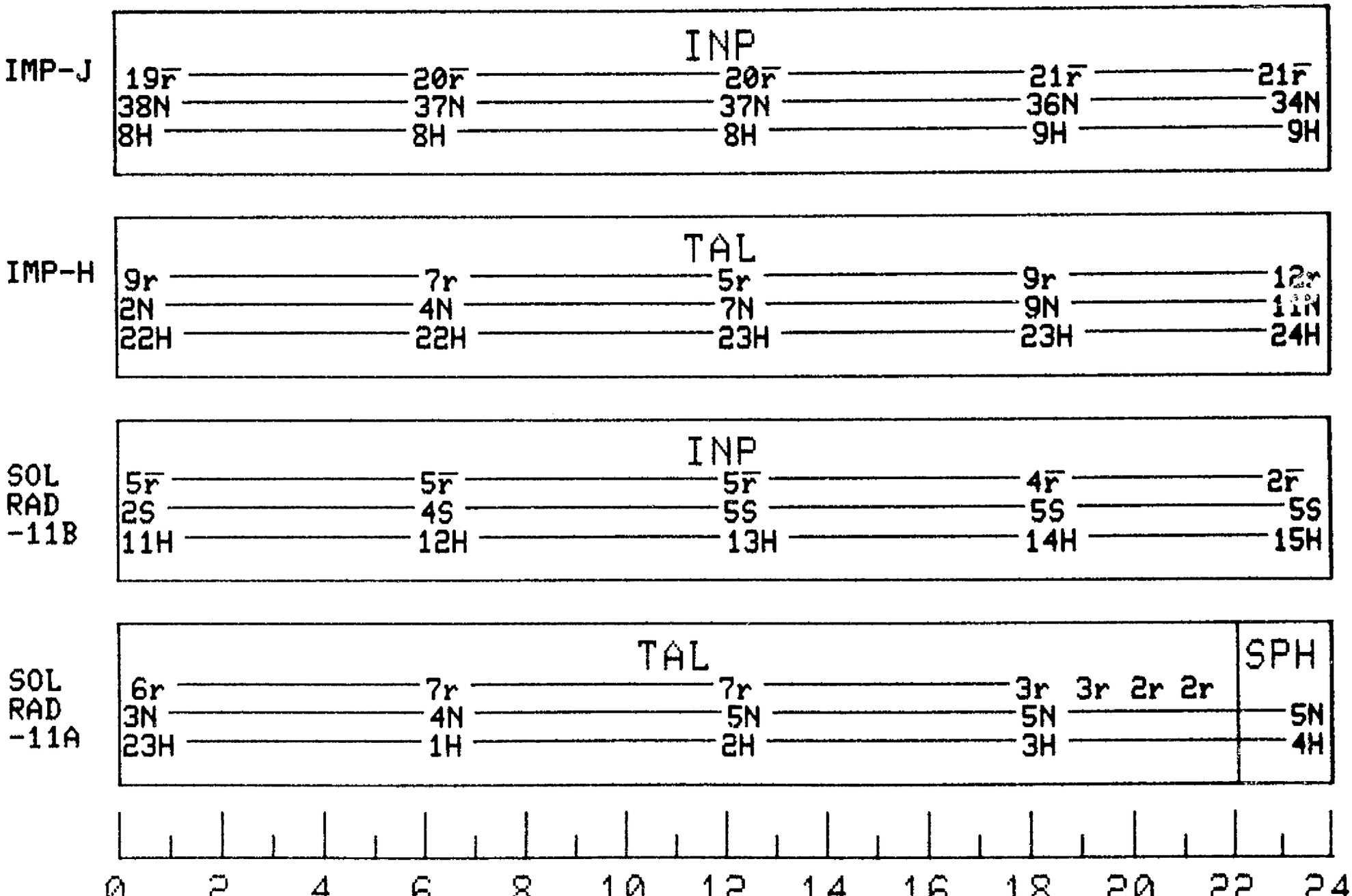
DAY 354 1977


VELA -6B
INP
3r 3r 3r 2r 1r
34N 20N 5N 10S 25S
12H 13H 14H 14H 15H
P
S
VELA -6A
SPH
30N
4H
SHE
7r
41N 51N
5H 7H
INP
0r 1r 2r
52N 44N
9H 11H
P
VELA -5B
TAL
4r 14r
2N 24N
2H 3H
SPH
SHE
46N 53N
5H 7H
P
VELA -5A
SHE
40S 49S
16H 18H
SPH
53S
20H
TAL
11r 7r
49S 41S
22H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

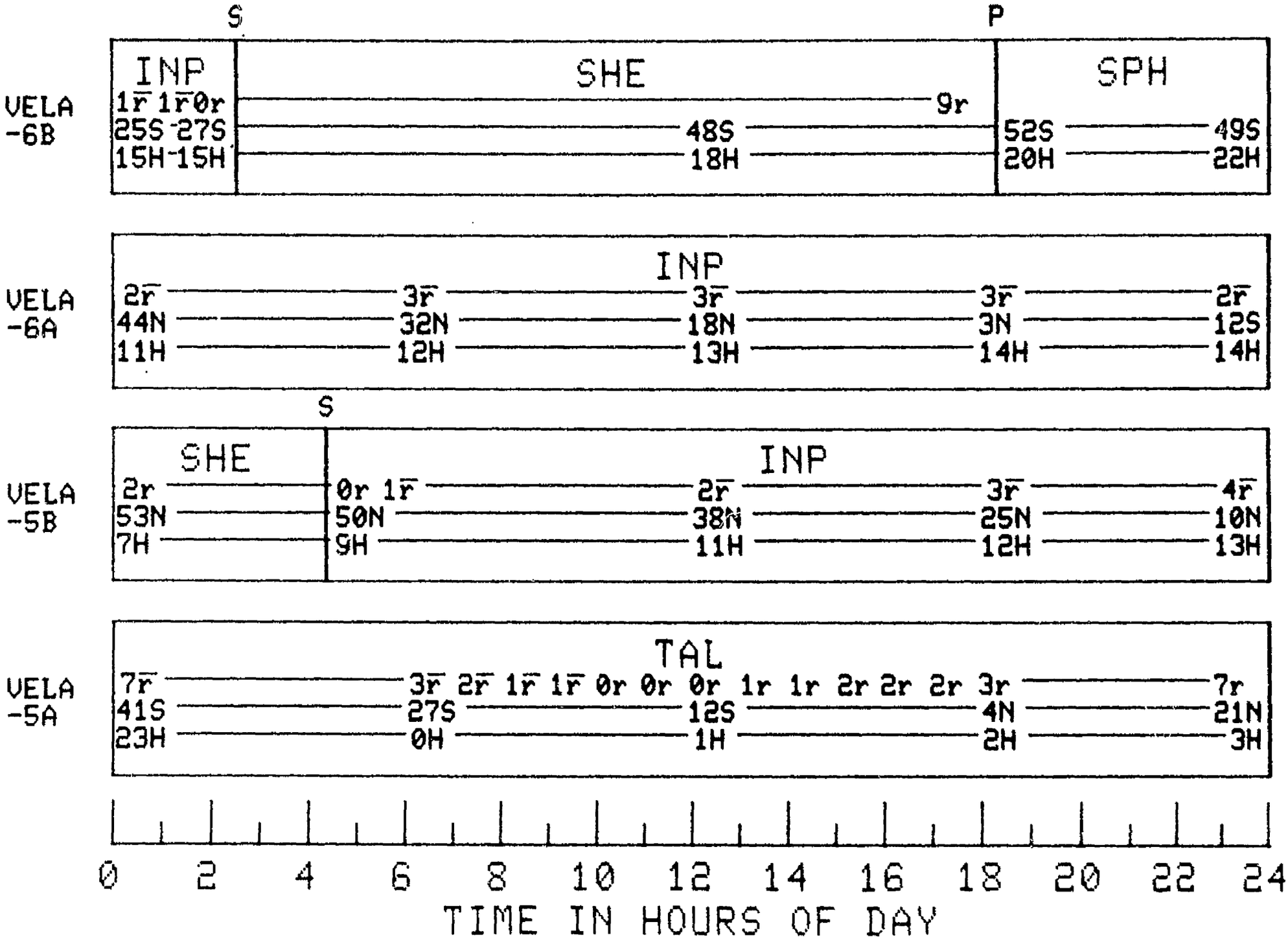
DAY 354 1977


ISEE -A-B
INP
SHE
SPH
S
P
2r̄
24N
7H
1r̄ 0r 0r
24N
7H
23N
8H
13N
10H
PROG NOZ-5
SHE
INP
S
76N
5H
0r 1r̄
78N
5H
4r̄
83N
6H
5r̄
86N
7H
5r̄
87N
10H
HAWK EYE-1
SHE
INP
SHE
S
S
29N
12H
27N
12H
0r 0r 0r 0r 1r̄ 1r̄ 0r 0r 0r 0r
31N
13H
60N
13H
62N
12H
54N
11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

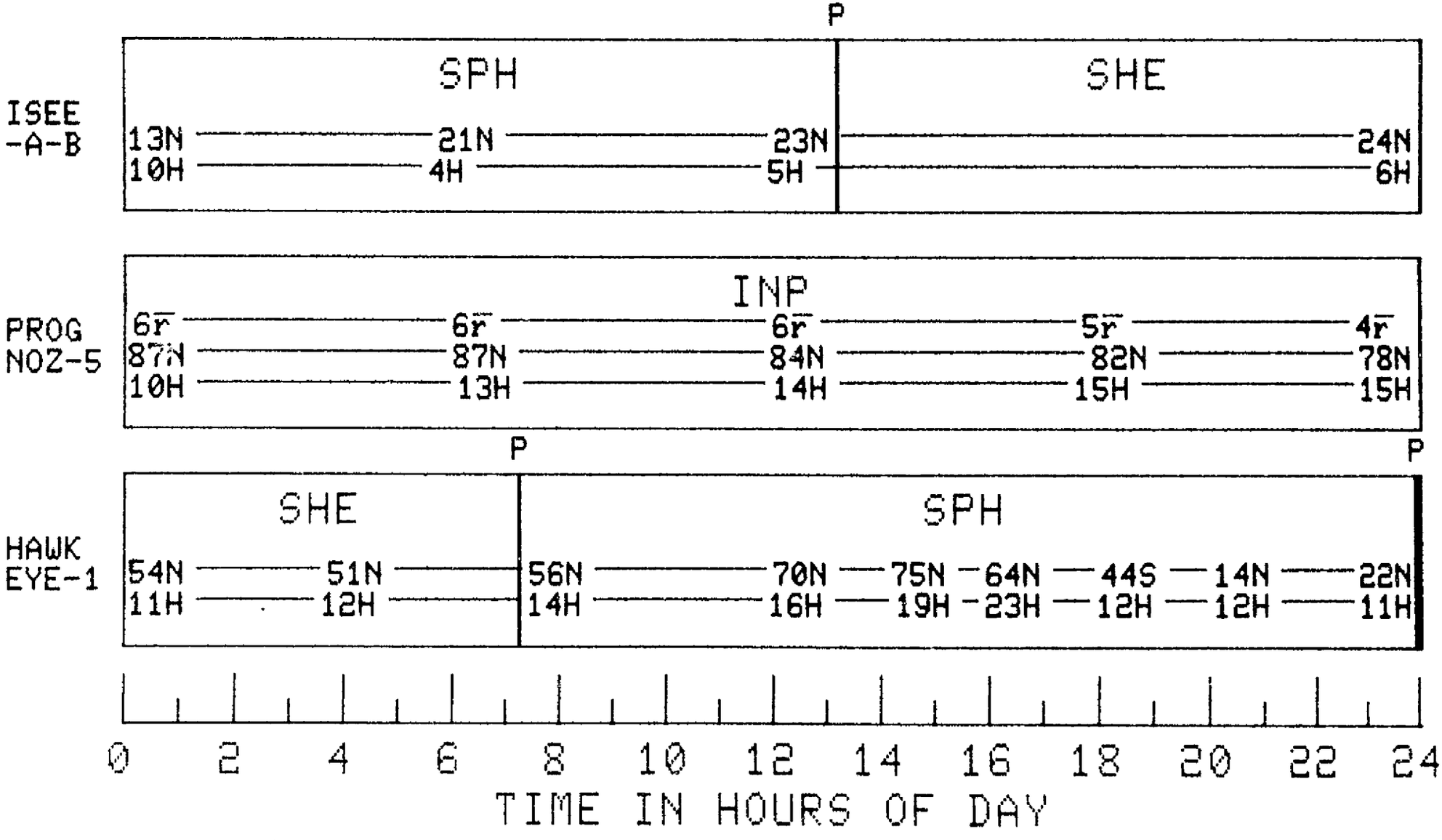
DAY 355 1977


IMP-J
INP
19r 20r 20r 21r 21r
38N 37N 37N 36N 34N
8H 8H 8H 9H 9H
IMP-H
TAL
9r 7r 5r 9r 12r
2N 4N 7N 9N 11N
22H 22H 23H 23H 24H
SOL RAD -11B
INP
5r 5r 5r 4r 2r
2S 4S 5S 5S 5S
11H 12H 13H 14H 15H
SOL RAD -11A
TAL
SPH
6r 7r 7r 3r 3r 2r 2r
3N 4N 5N 5N 5N
23H 1H 2H 3H 4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

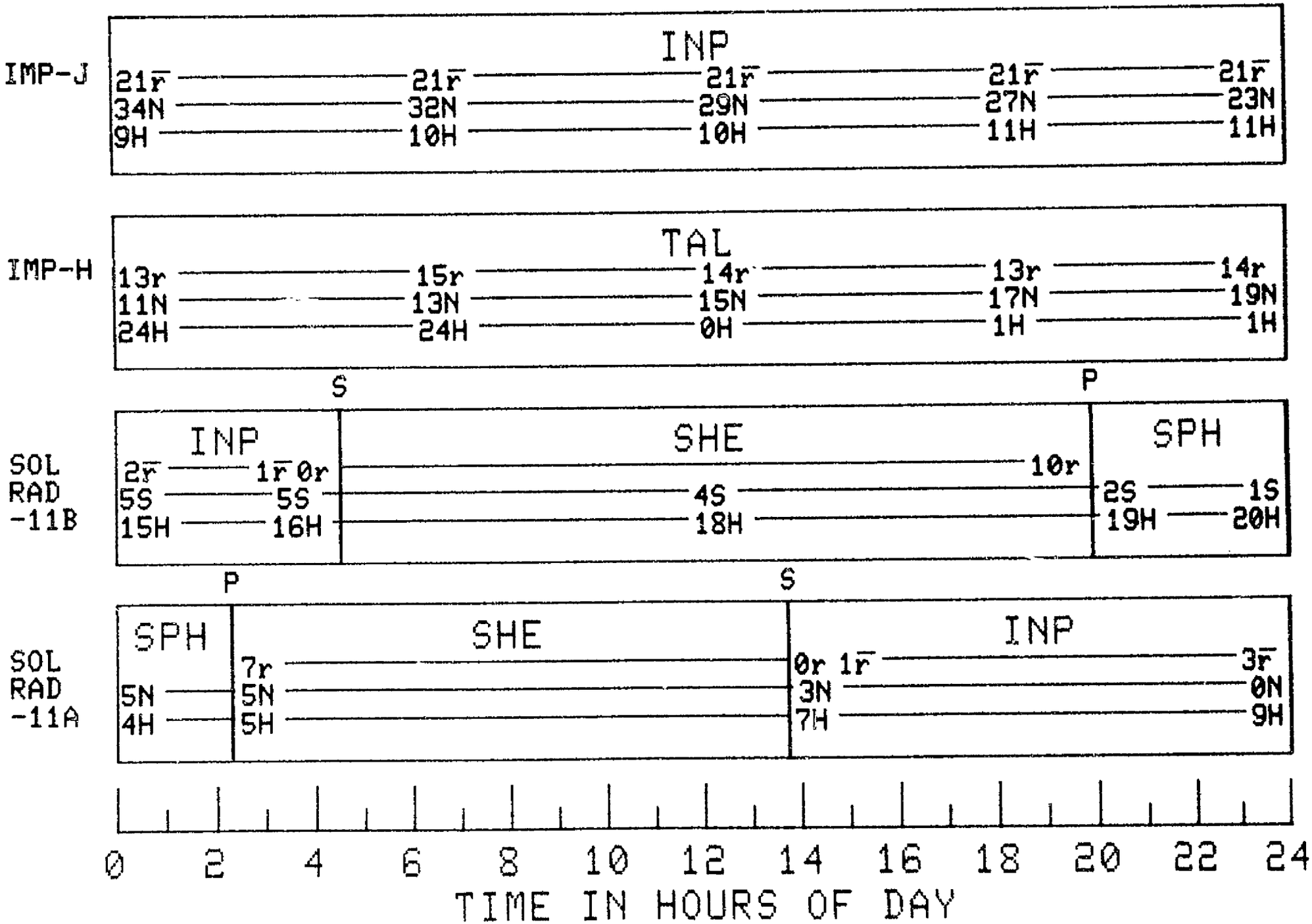
DAY 355 1977


S
P
INP
SHE
SPH
VELA -6B
1r 1r 0r
9r
25S 27S
48S
52S 49S
15H 15H
18H
20H 22H
INP
VELA -6A
2r 3r 3r 3r 2r
44N 32N 18N 3N 12S
11H 12H 13H 14H 14H
S
SHE
INP
VELA -5B
2r 0r 1r 2r 3r 4r
53N 50N 38N 25N 10N
7H 9H 11H 12H 13H
TAL
VELA -5A
7r 3r 2r 1r 1r 0r 0r 0r 1r 1r 2r 2r 2r 3r 7r
41S 27S 12S 4N 21N
23H 0H 1H 2H 3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

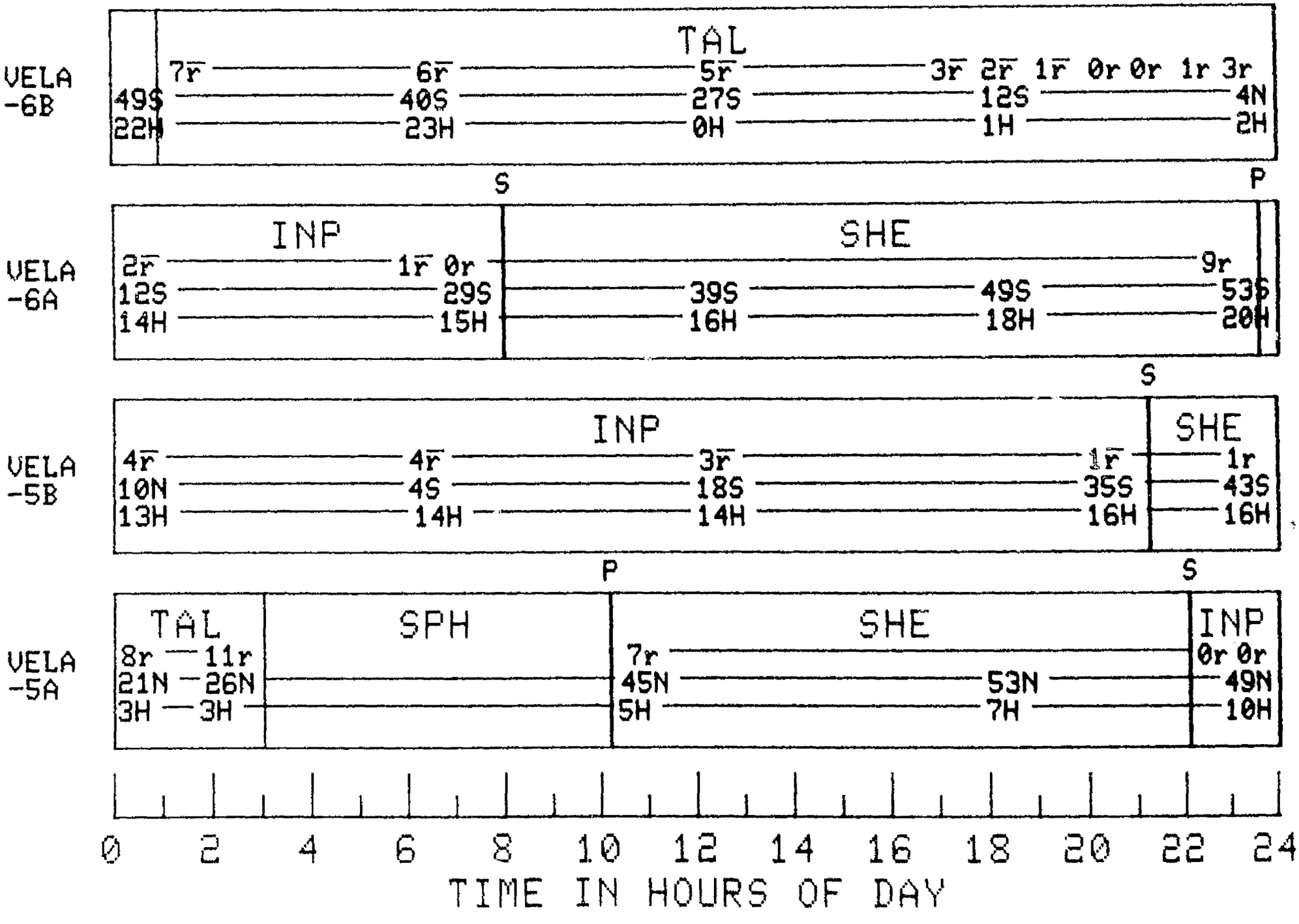
DAY 355 1977


P
SPH
SHE
ISEE
-A-B
13N
21N
23N
24N
10H
4H
5H
6H
INP
PROG
NOZ-5
6r̄
6r̄
6r̄
5r̄
4r̄
87N
87N
84N
82N
78N
10H
13H
14H
15H
15H
P
P
SHE
SPH
HAWK
EYE-1
54N
51N
56N
70N
75N
64N
44S
14N
22N
11H
12H
14H
16H
19H
23H
12H
12H
11H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

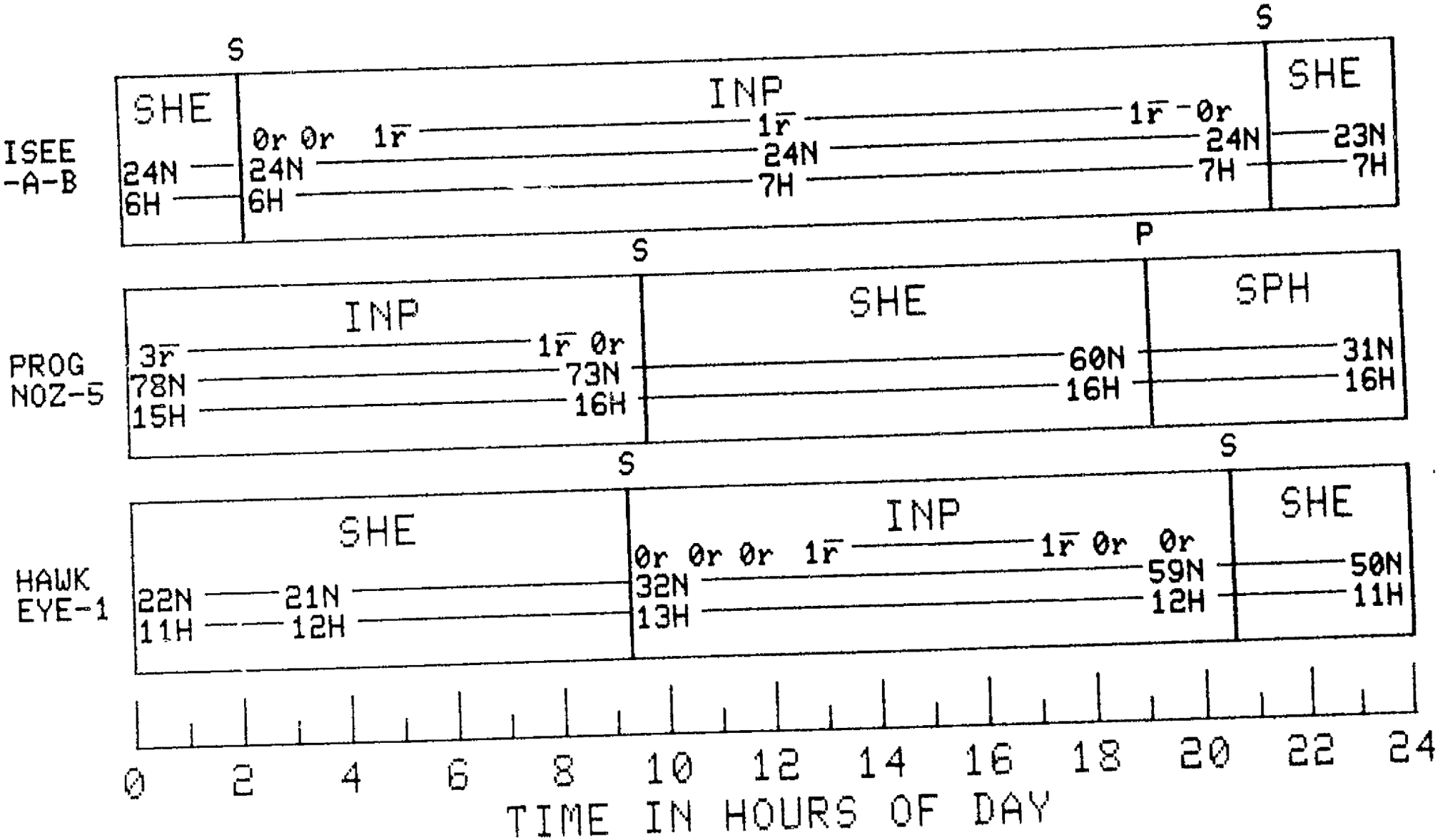
DAY 356 1977


IMP-J
INP
21r̄ 21r̄ 21r̄ 21r̄ 21r̄
34N 32N 29N 27N 23N
9H 10H 10H 11H 11H
IMP-H
TAL
13r 15r 14r 13r 14r
11N 13N 15N 17N 19N
24H 24H 0H 1H 1H
S
P
SOL RAD -11B
INP
SHE
SPH
2r̄ 1r̄ 0r 10r
5S 5S 4S 2S 1S
15H 16H 18H 19H 20H
P
S
SOL RAD -11A
SPH
SHE
INP
7r 0r 1r̄ 3r̄
5N 5N 3N 0N
4H 5H 7H 9H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

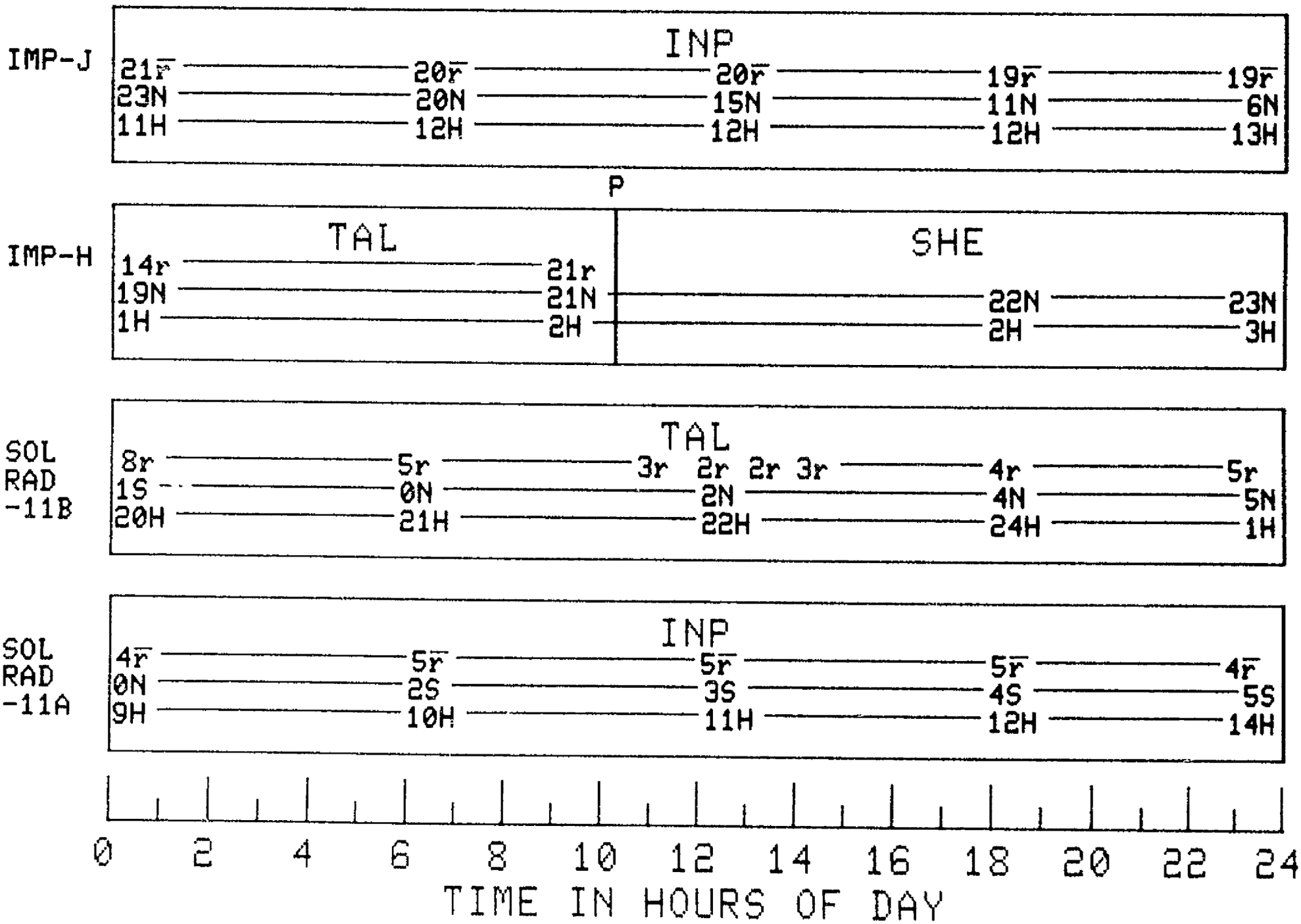
DAY 356 1977


VELA -6B
TAL
7r 6r 5r 3r 2r 1r 0r 0r 1r 3r
49S 40S 27S 12S 4N
22H 23H 0H 1H 2H
S
P
VELA -6A
INP
SHE
2r 1r 0r 9r
12S 29S 39S 49S 53S
14H 15H 16H 18H 20H
S
VELA -5B
INP
SHE
4r 4r 3r 1r 1r
10N 4S 18S 35S 43S
13H 14H 14H 16H 16H
P
S
VELA -5A
TAL
SPH
SHE
INP
8r 11r 7r 0r 0r
21N 26N 45N 53N 49N
3H 3H 5H 7H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

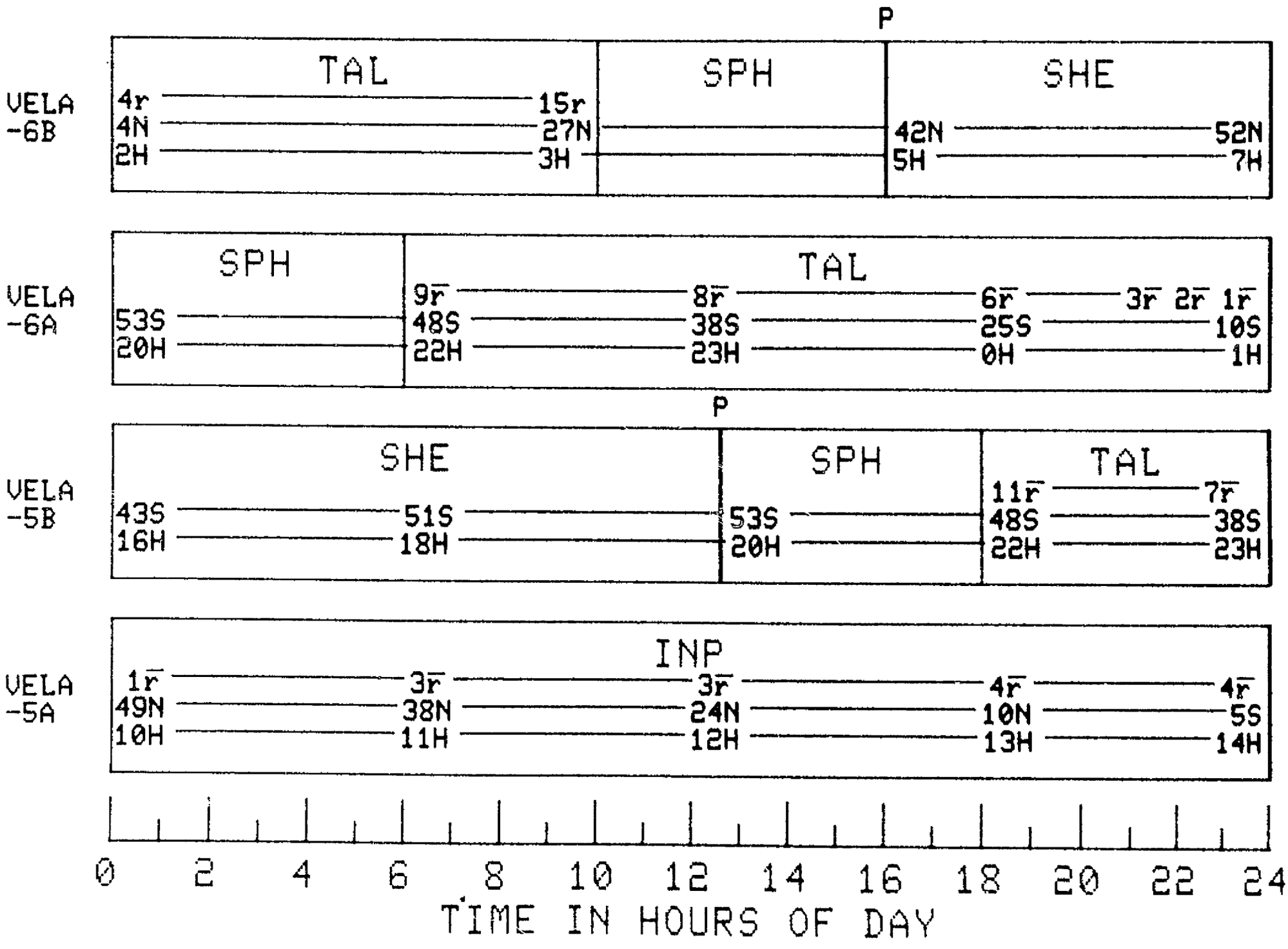
DAY 356 1977


ISEE
-A-B
PROG
NOZ-5
HAWK
EYE-1
S
SHE
INP
SHE
24N
6H
0r 0r 1r
24N
6H
1r
24N
7H
1r 0r
24N
7H
23N
7H
S
INP
SHE
P
SPH
3r
78N
15H
1r 0r
73N
16H
60N
16H
31N
16H
S
SHE
INP
SHE
22N
11H
21N
12H
0r 0r 0r 1r
32N
13H
1r 0r 0r
59N
12H
50N
11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

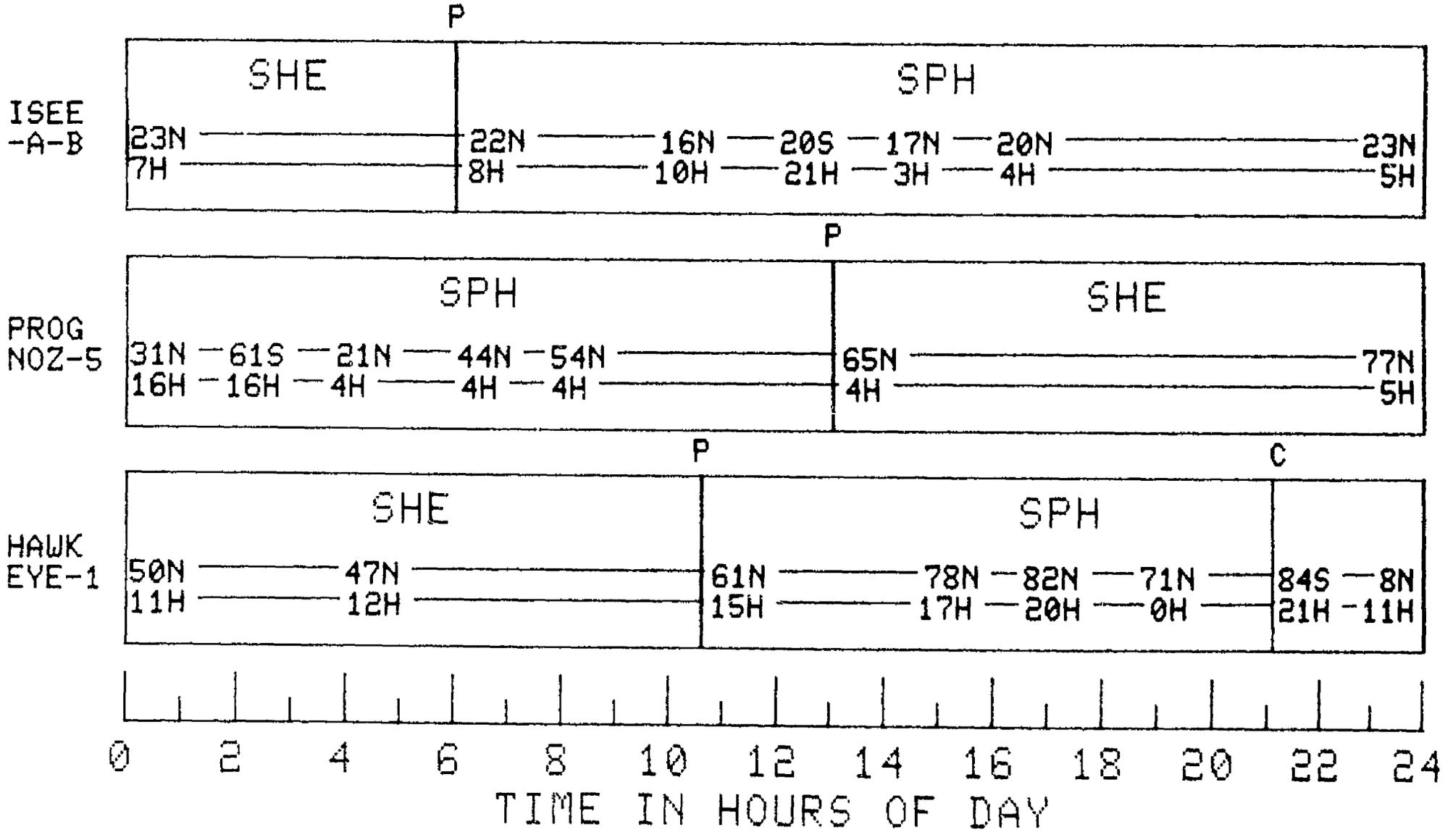
DAY 357 1977

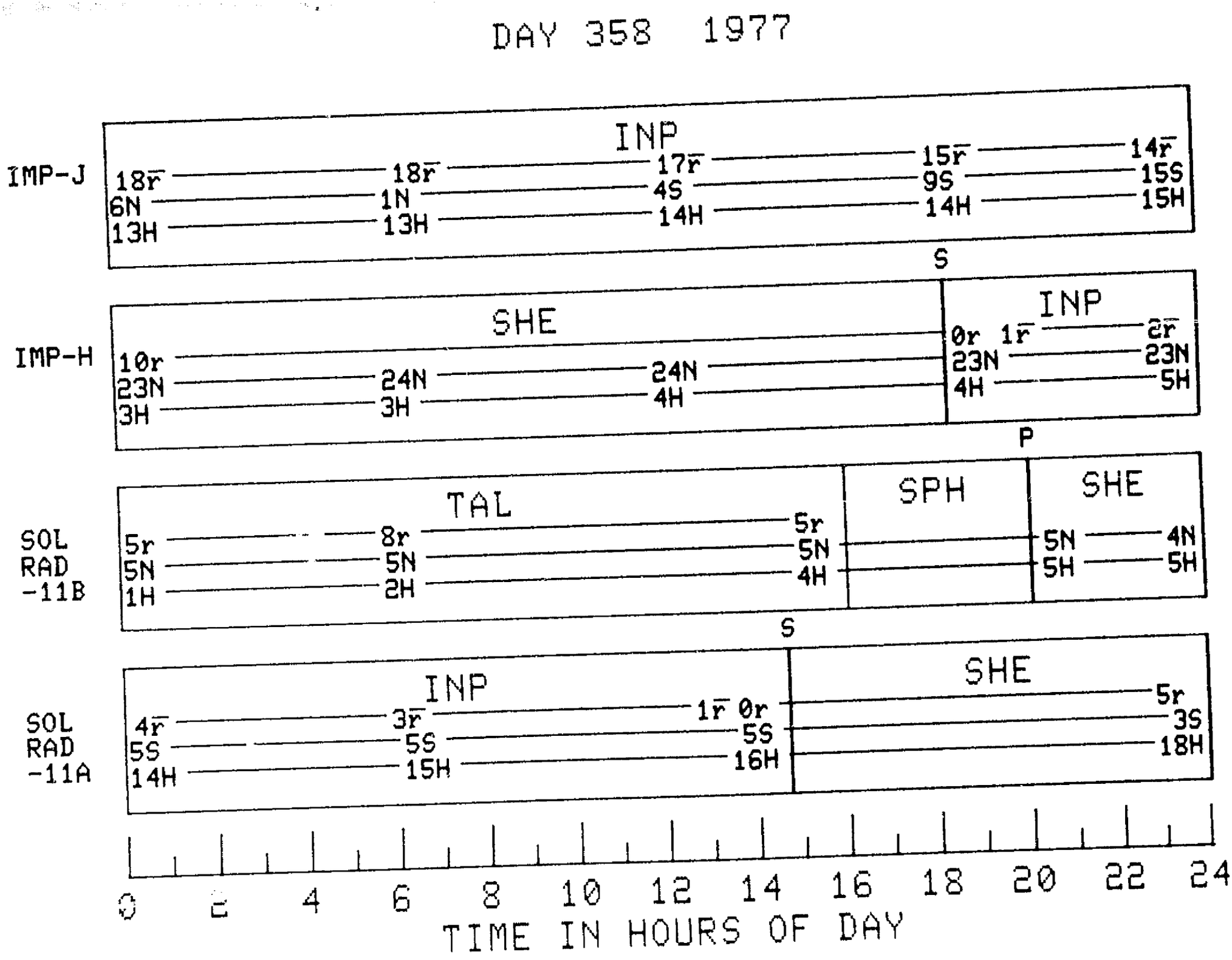

IMP-J
INP
21r 20r 20r 19r 19r
23N 20N 15N 11N 6N
11H 12H 12H 12H 13H
P
IMP-H
TAL
SHE
14r 21r
19N 21N 22N 23N
1H 2H 2H 3H
SOL RAD -11B
TAL
8r 5r 3r 2r 2r 3r 4r 5r
1S 0N 2N 4N 5N
20H 21H 22H 24H 1H
SOL RAD -11A
INP
4r 5r 5r 5r 4r
0N 2S 3S 4S 5S
9H 10H 11H 12H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 357 1977

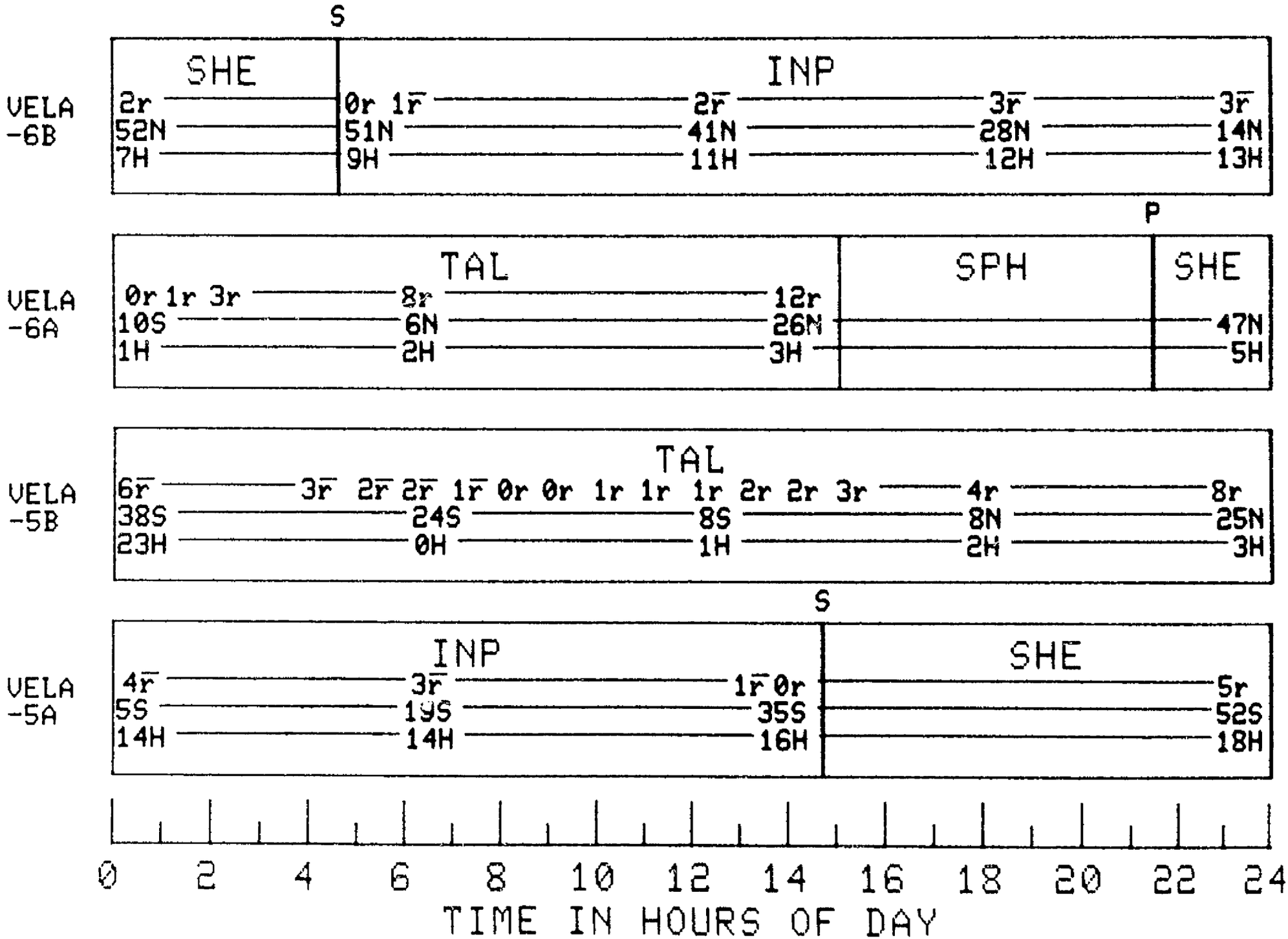

P
VELA -6B
TAL
SPH
SHE
4r
15r
4N
27N
2H
3H
42N
52N
5H
7H
VELA -6A
SPH
TAL
9r̄
8r̄
6r̄
3r̄ 2r̄ 1r̄
53S
48S
38S
25S
10S
20H
22H
23H
0H
1H
P
VELA -5B
SHE
SPH
TAL
11r̄
7r̄
43S
51S
53S
48S
38S
16H
18H
20H
22H
23H
VELA -5A
INP
1r̄
3r̄
3r̄
4r̄
4r̄
49N
38N
24N
10N
5S
10H
11H
12H
13H
14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 357 1977

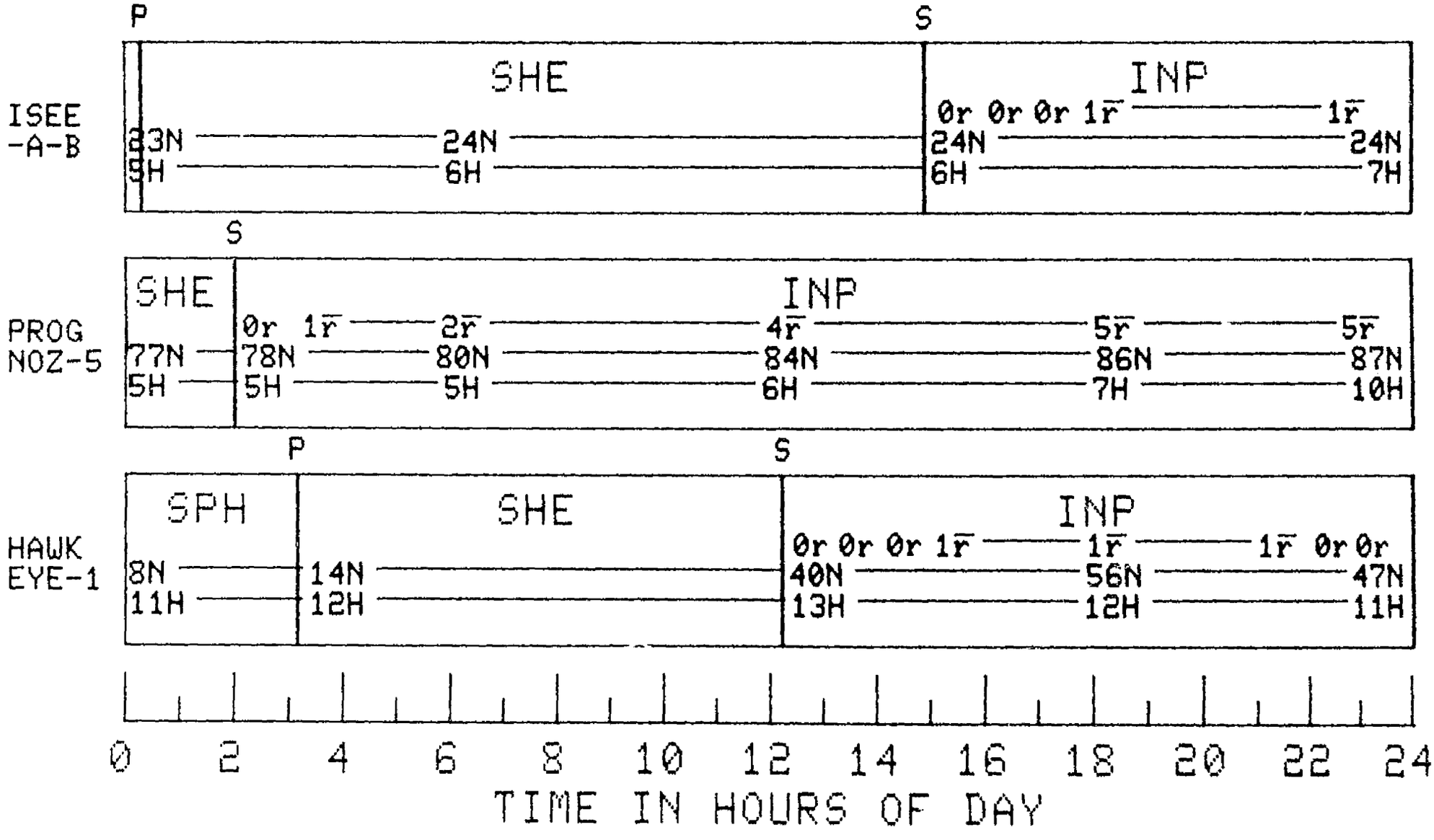

P
SHE
SPH
ISEE
-A-B
23N 22N 16N 20S 17N 20N 23N
7H 8H 10H 21H 3H 4H 5H
P
SPH
SHE
PROG
NOZ-5
31N 61S 21N 44N 54N 65N 77N
16H 16H 4H 4H 4H 4H 5H
P
C
SHE
SPH
HAWK
EYE-1
50N 47N 61N 78N 82N 71N 84S 8N
11H 12H 15H 17H 20H 0H 21H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 358 1977
IMP-J
INP
18r 18r 17r 15r 14r
6N 1N 4S 9S 15S
13H 13H 14H 14H 15H
S
IMP-H
SHE
INP
10r 24N 24N 0r 1r 2r
23N 3H 4H 23N 4H 23N 5H
P
SOL RAD -11B
TAL
SPH
SHE
5r 8r 5r 5N 4N
5N 5N 5N 5H 5H
1H 2H 4H
S
SOL RAD -11A
INP
SHE
4r 3r 1r 0r 5r
5S 5S 5S 3S
14H 15H 16H 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

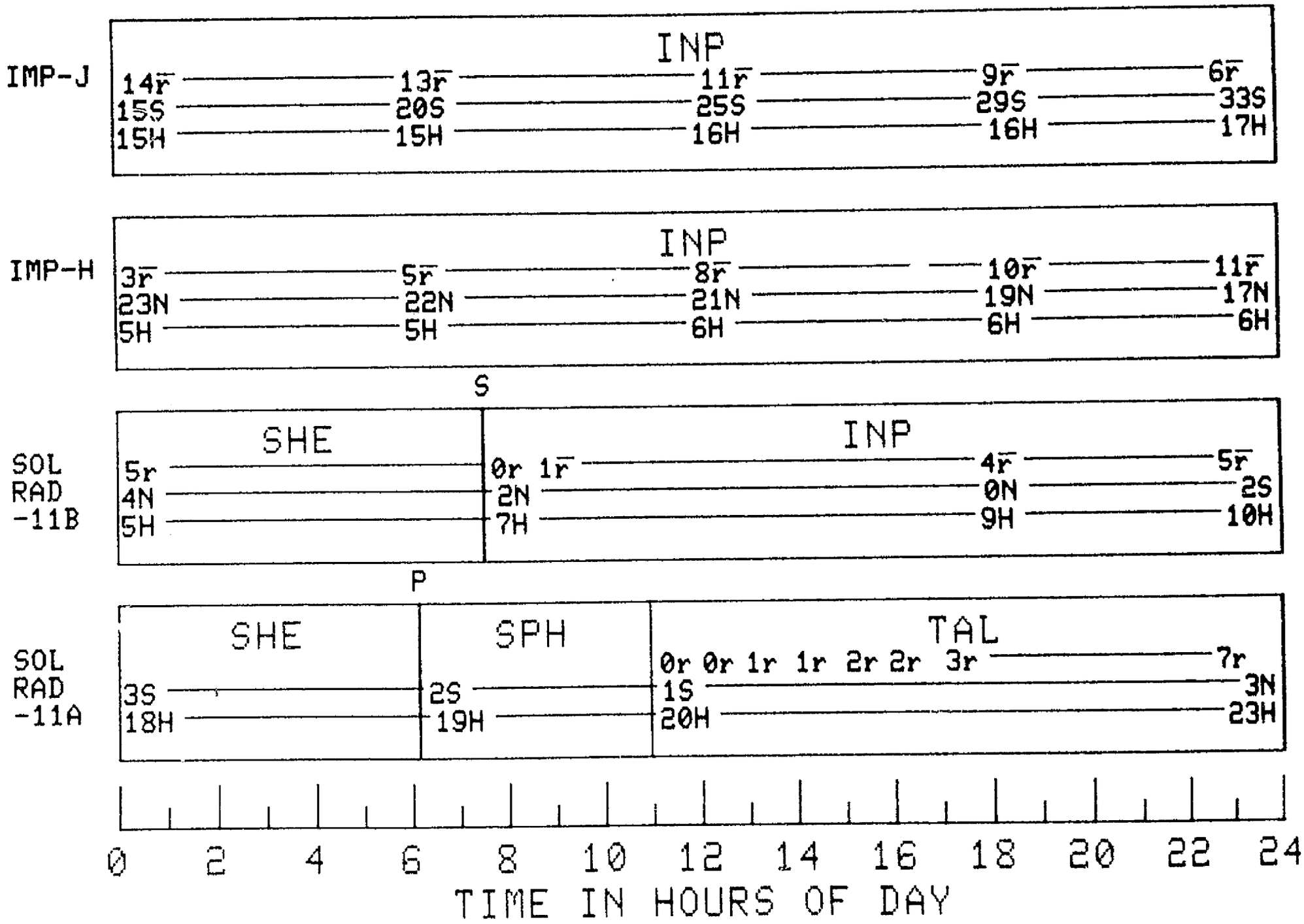
DAY 358 1977


S
SHE
INP
VELA -6B
2r 52N 7H
0r 1r 51N 9H
2r 41N 11H
3r 28N 12H
3r 14N 13H
P
TAL
SPH
SHE
VELA -6A
0r 1r 3r 10S 1H
8r 6N 2H
12r 26N 3H
47N 5H
TAL
VELA -5B
6r 38S 23H
3r 2r 2r 1r 0r 0r 1r 1r 1r 2r 2r 3r 24S 0H
8S 1H
4r 8N 2H
8r 25N 3H
S
INP
SHE
VELA -5A
4r 5S 14H
3r 19S 14H
1r 0r 35S 16H
5r 52S 18H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

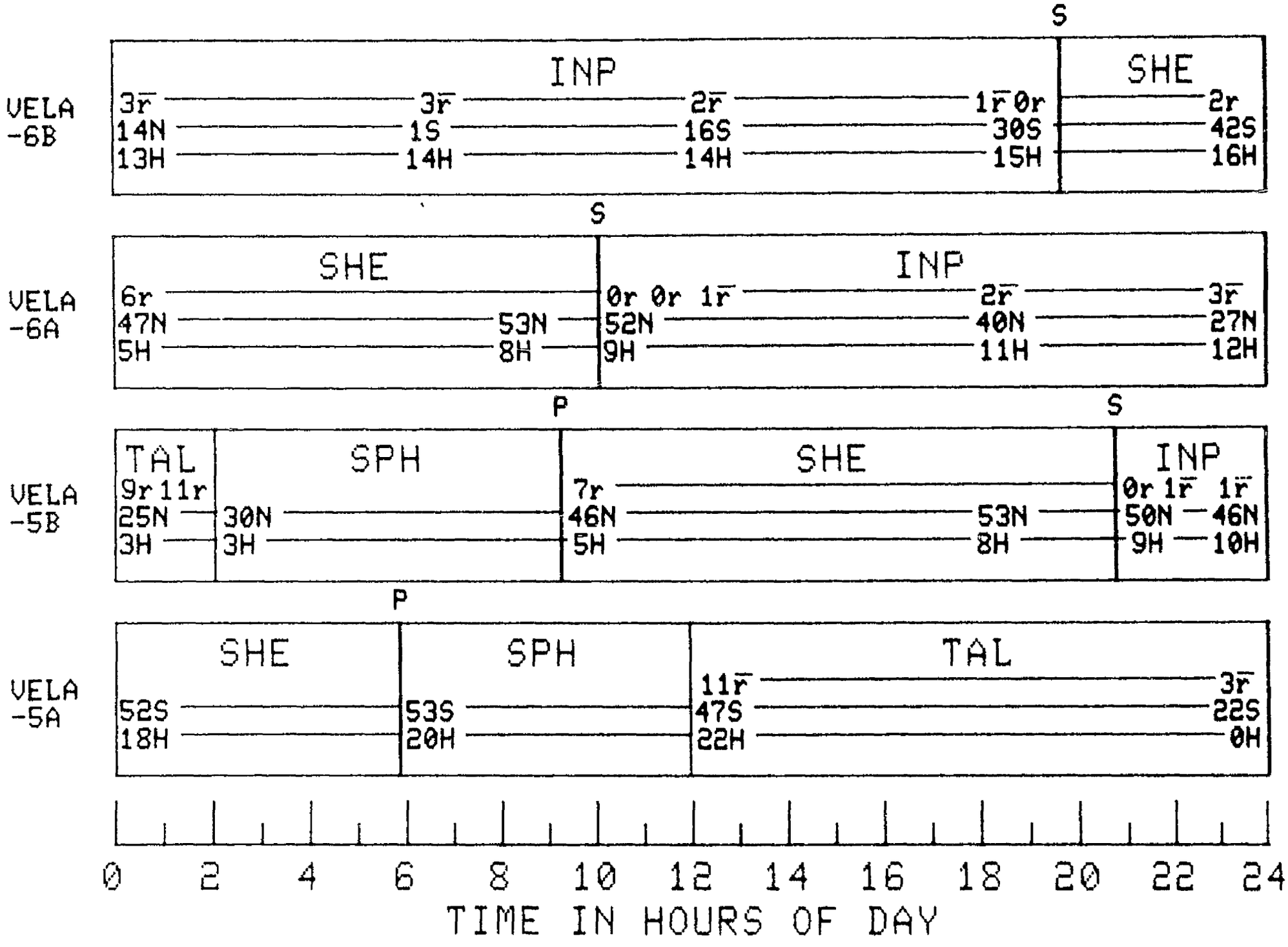
DAY 358 1977


P
S
ISEE
-A-B
SHE
INP
3N
24N
24N
5H
6H
6H
0r 0r 0r 1r
1r
24N
7H
S
PROG
NOZ-5
SHE
INP
77N
5H
0r 1r
78N
5H
2r
80N
5H
4r
84N
6H
5r
86N
7H
5r
87N
10H
P
S
HAWK
EYE-1
SPH
SHE
INP
8N
11H
14N
12H
0r 0r 0r 1r
40N
13H
1r
56N
12H
1r 0r 0r
47N
11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

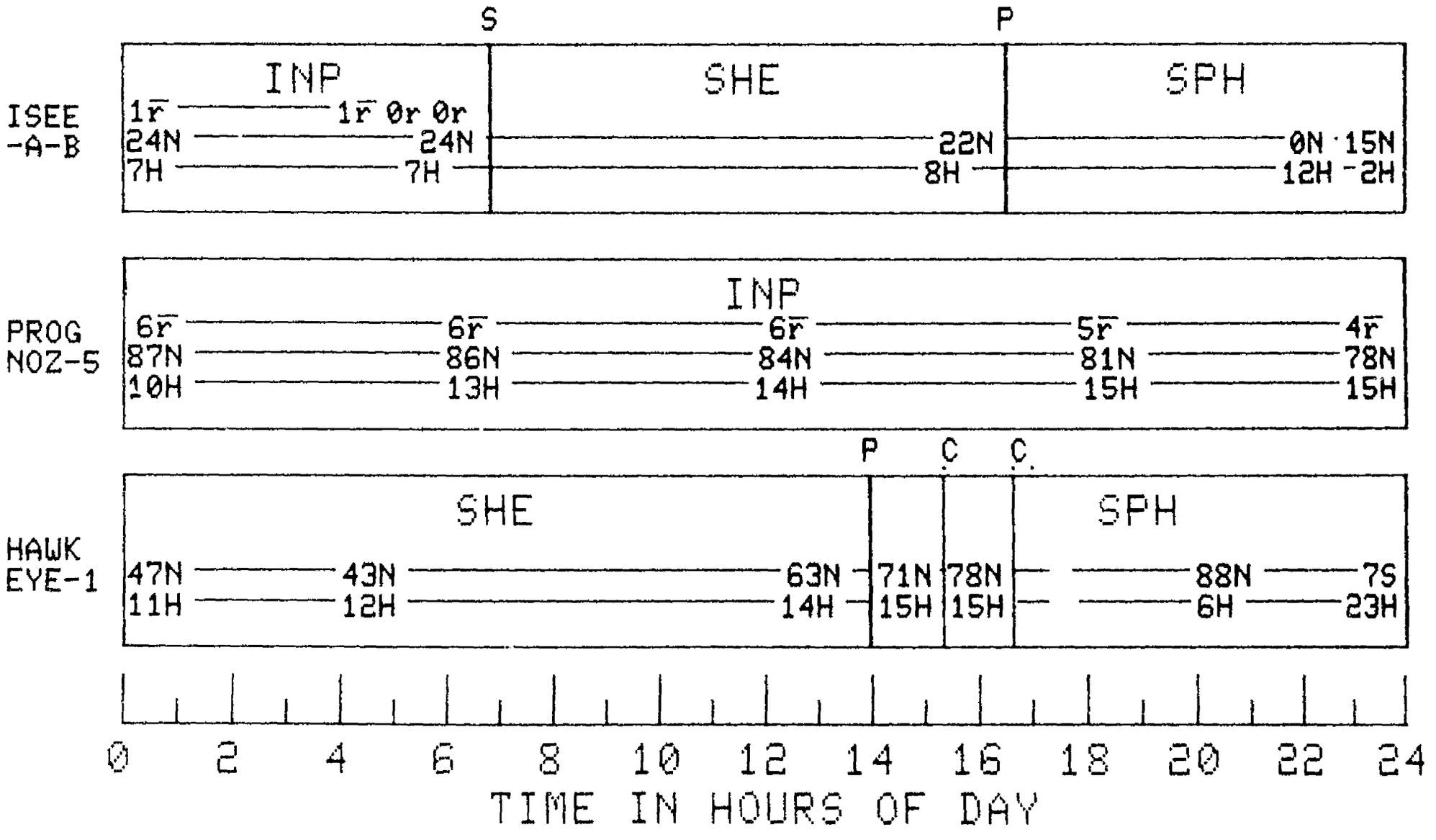
DAY 359 1977

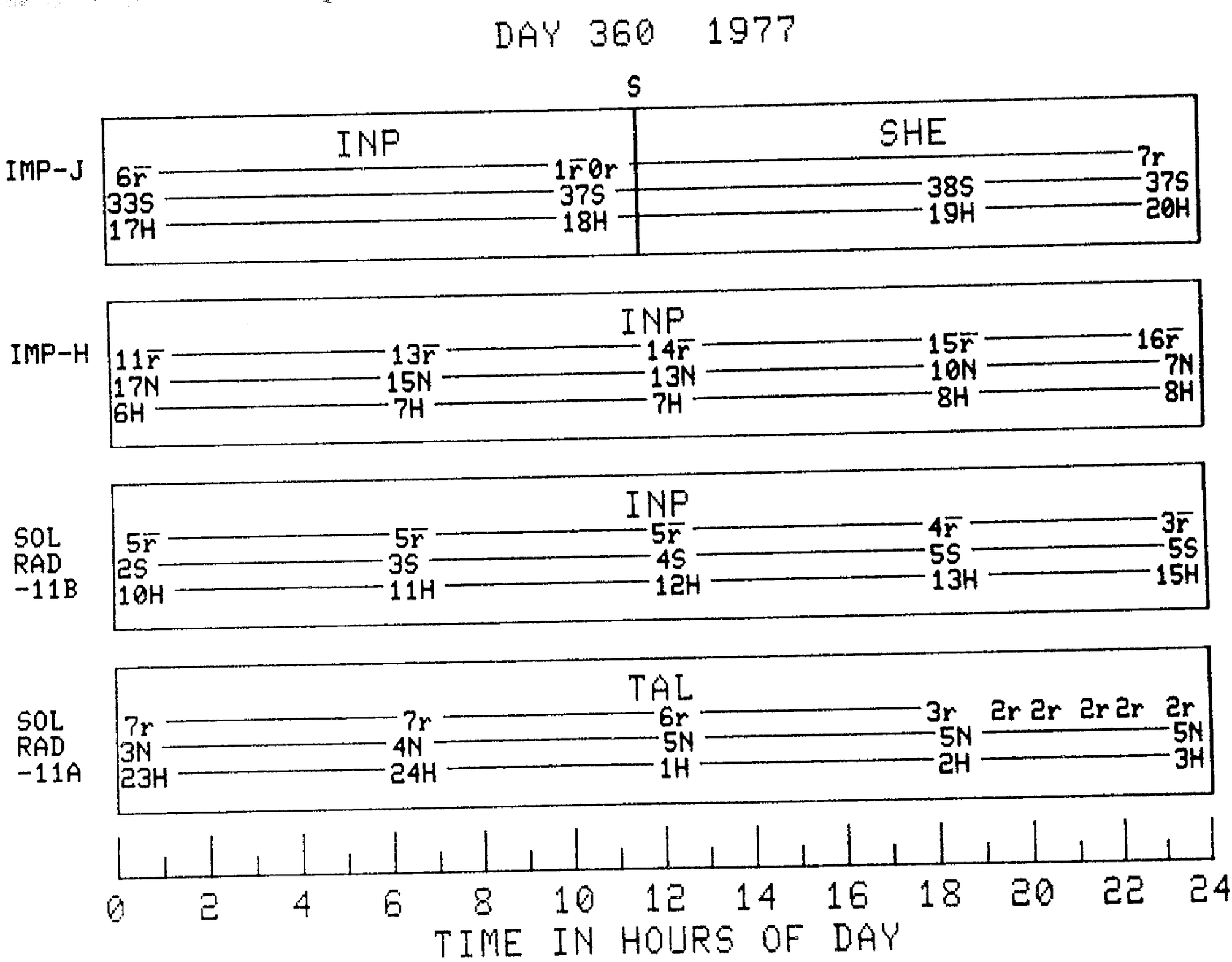

IMP-J
INP
14r 13r 11r 9r 6r
15S 20S 25S 29S 33S
15H 15H 16H 16H 17H
IMP-H
INP
3r 5r 8r 10r 11r
23N 22N 21N 19N 17N
5H 5H 6H 6H 6H
S
SOL RAD -11B
SHE
INP
5r 0r 1r 4r 5r
4N 2N 0N 2S
5H 7H 9H 10H
P
SOL RAD -11A
SHE
SPH
TAL
0r 0r 1r 1r 2r 2r 3r 7r
3S 2S 1S 3N
18H 19H 20H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 359 1977

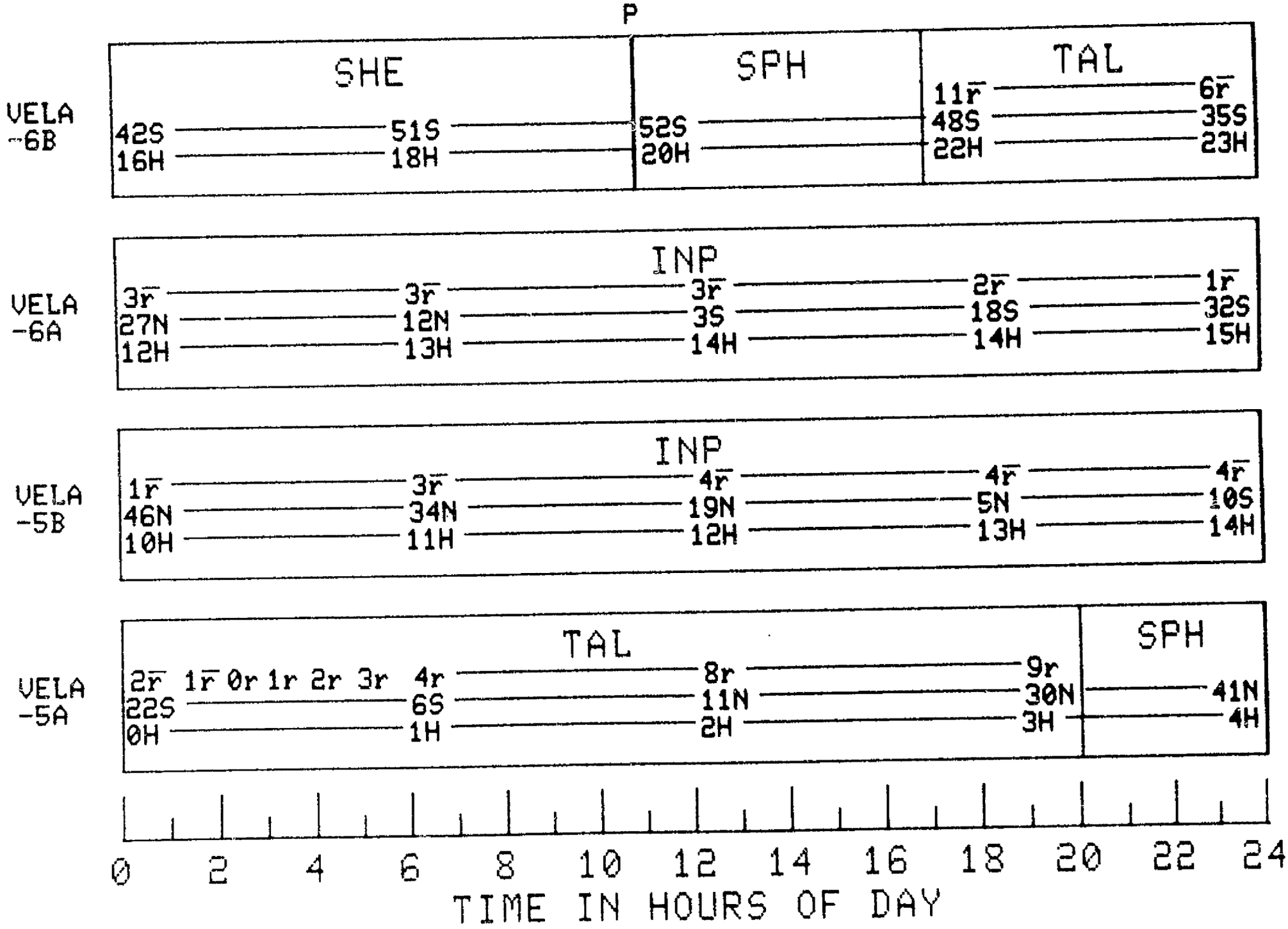

VELA -6B
INP
SHE
S
3r̄ 3r̄ 2r̄ 1r̄ 0r 2r
14N 1S 16S 30S 42S
13H 14H 14H 15H 16H
VELA -6A
SHE
INP
S
6r 0r 0r 1r̄ 2r̄ 3r̄
47N 53N 52N 40N 27N
5H 8H 9H 11H 12H
VELA -5B
TAL
SPH
SHE
INP
P
S
9r 11r 7r 0r 1r̄ 1r̄
25N 30N 46N 53N 50N 46N
3H 3H 5H 8H 9H 10H
VELA -5A
SHE
SPH
TAL
P
11r̄ 3r̄
52S 53S 47S 22S
18H 20H 22H 0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 359 1977

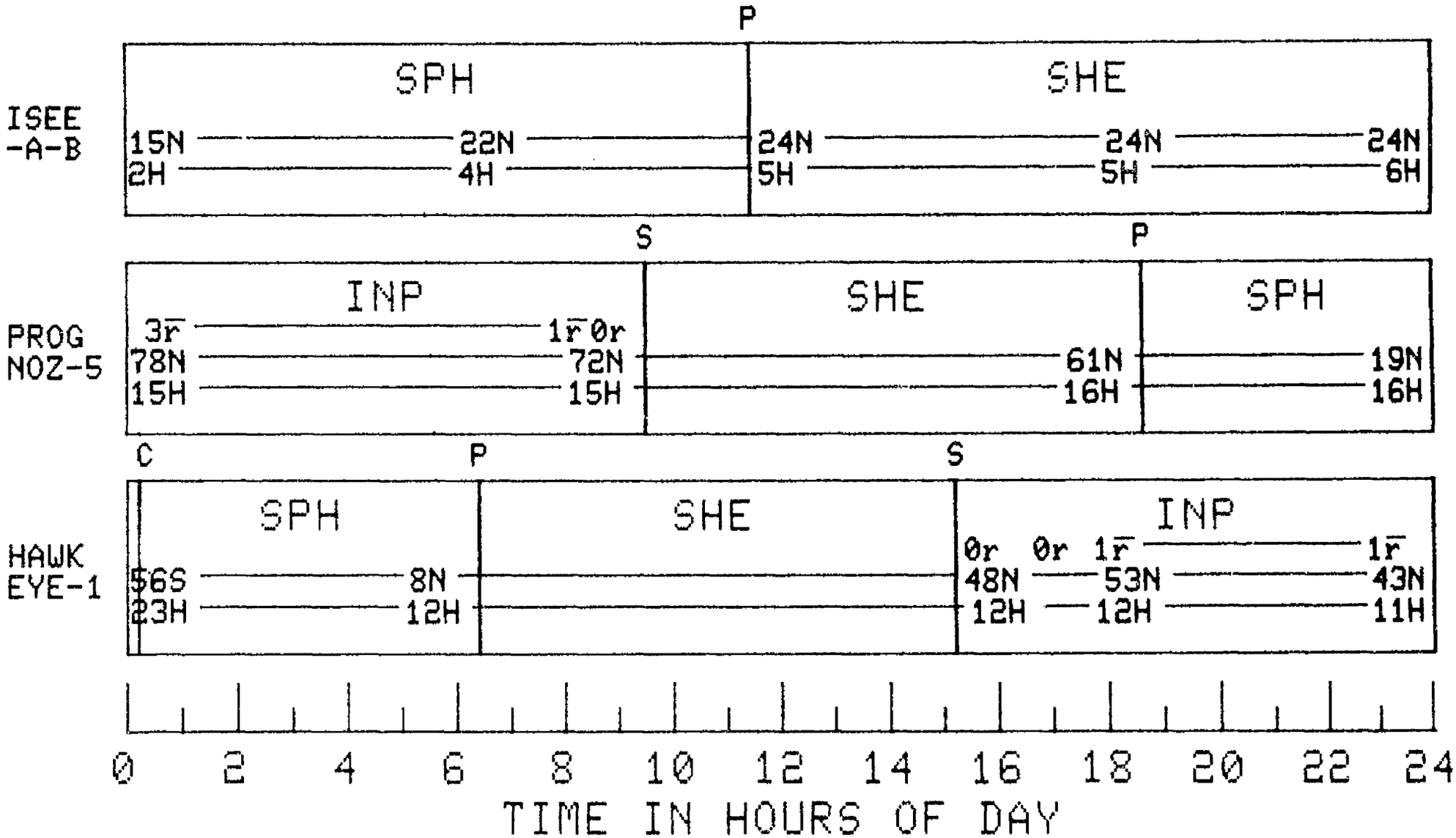

S
P
INP
SHE
SPH
ISEE
-A-B
1r 1r 0r 0r
24N 24N 22N 0N 15N
7H 7H 8H 12H 2H
INP
PROG
NOZ-5
6r 6r 6r 5r 4r
87N 86N 84N 81N 78N
10H 13H 14H 15H 15H
P
C
C
SHE
SPH
HAWK
EYE-1
47N 43N 63N 71N 78N 88N 7S
11H 12H 14H 15H 15H 6H 23H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

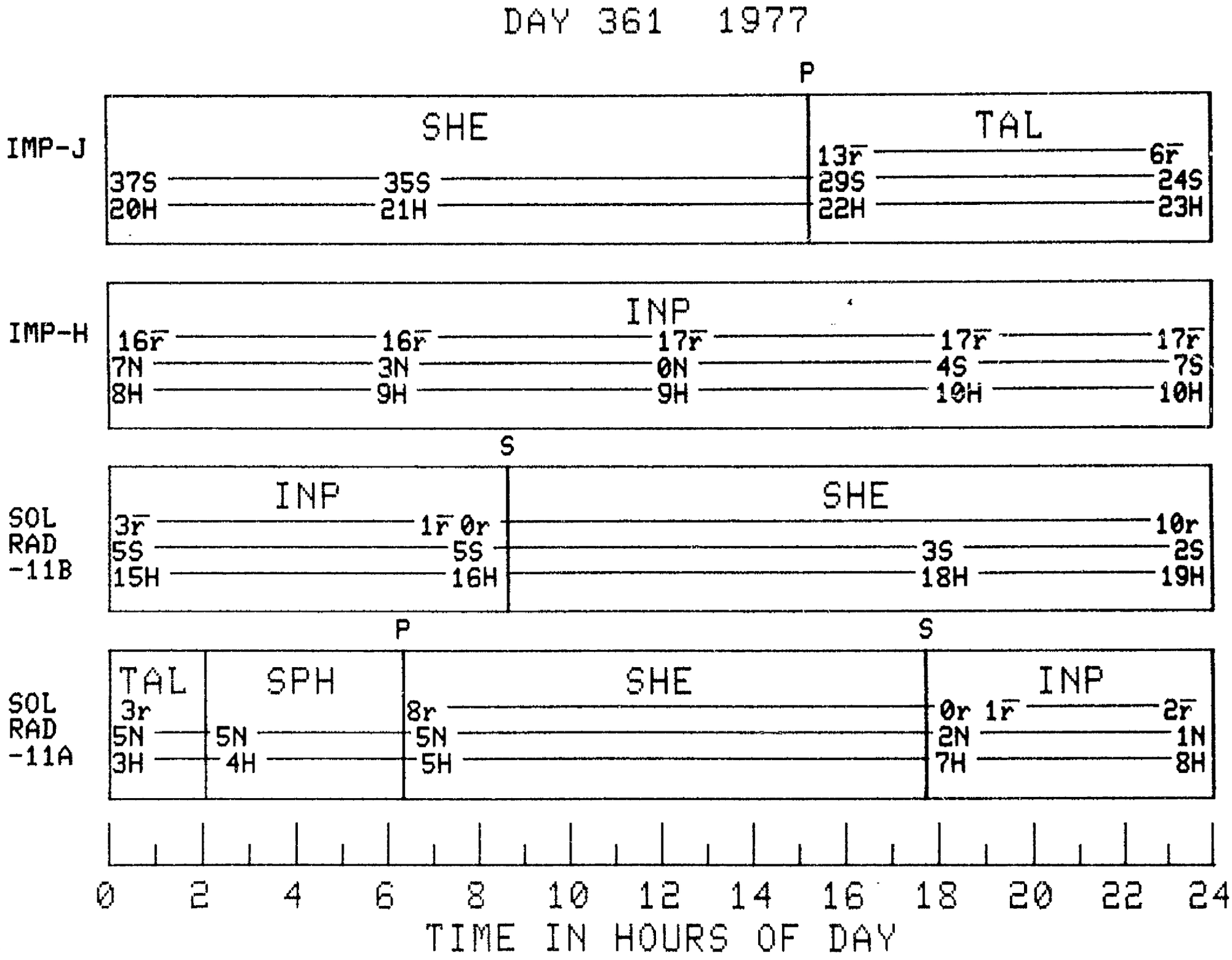

DAY 360 1977
S
IMP-J
INP
SHE
6r
33S
17H
1r 0r
37S
18H
38S
19H
7r
37S
20H
IMP-H
INP
11r
17N
6H
13r
15N
7H
14r
13N
7H
15r
10N
8H
16r
7N
8H
SOL RAD -11B
INP
5r
2S
10H
5r
3S
11H
5r
4S
12H
4r
5S
13H
3r
5S
15H
SOL RAD -11A
TAL
7r
3N
23H
7r
4N
24H
6r
5N
1H
3r
5N
2H
2r 2r 2r 2r 2r
5N
3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 360 1977

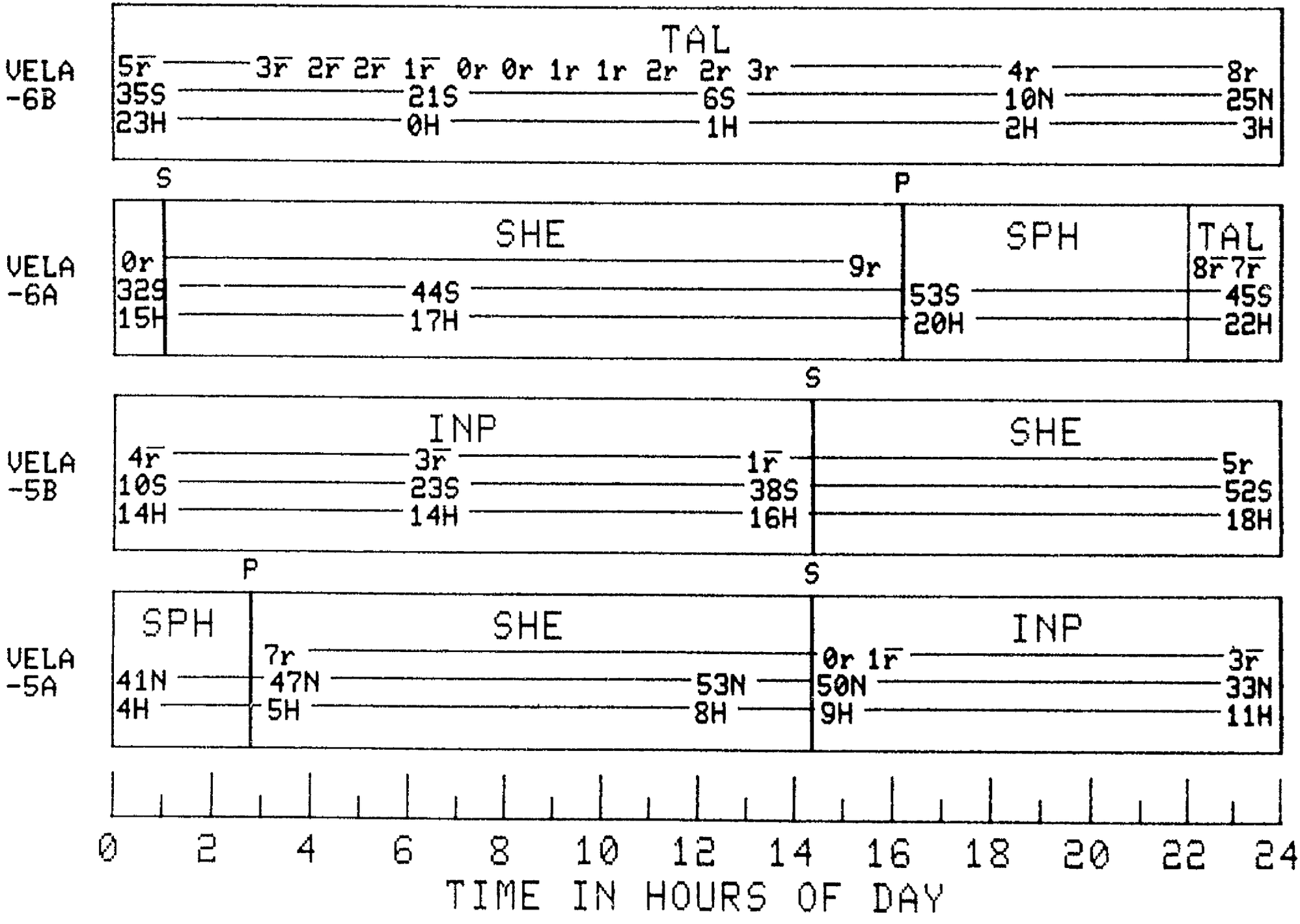

P
VELA -6B
SHE
42S 51S
16H 18H
SPH
52S
20H
TAL
11r 6r
48S 35S
22H 23H
VELA -6A
INP
3r 3r 3r 2r 1r
27N 12N 3S 18S 32S
12H 13H 14H 14H 15H
VELA -5B
INP
1r 3r 4r 4r 4r
46N 34N 19N 5N 10S
10H 11H 12H 13H 14H
VELA -5A
TAL
2r 1r 0r 1r 2r 3r 4r 8r 9r
22S 6S 11N 30N
0H 1H 2H 3H
SPH
41N
4H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 360 1977

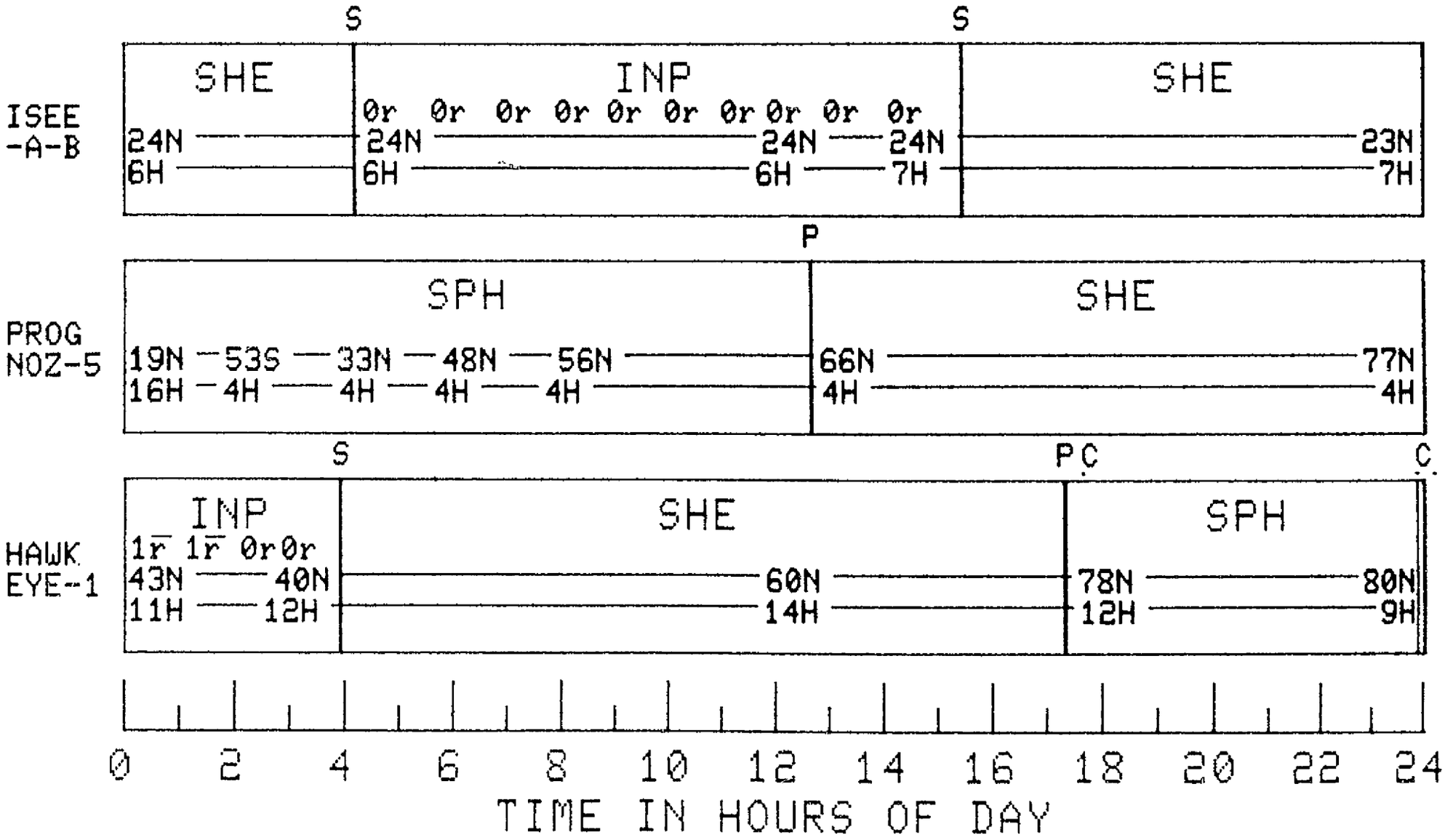

P
SPH
SHE
ISEE
-A-B
15N
22N
24N
24N
24N
2H
4H
5H
5H
6H
S
P
INP
SHE
SPH
PROG
NOZ-5
3r
1r 0r
78N
72N
61N
19N
15H
15H
16H
16H
C
P
S
SPH
SHE
INP
HAWK
EYE-1
56S
8N
0r 0r 1r
1r
48N
53N
43N
23H
12H
12H
12H
11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 361 1977
P
IMP-J
SHE
TAL
37S
35S
13r̄
6r̄
29S
24S
20H
21H
22H
23H
IMP-H
INP
16r̄
16r̄
17r̄
17r̄
17r̄
7N
3N
0N
4S
7S
8H
9H
9H
10H
10H
S
SOL
RAD
-11B
INP
SHE
3r̄
1r̄
0r
10r
5S
5S
3S
2S
15H
16H
18H
19H
P
S
SOL
RAD
-11A
TAL
SPH
SHE
INP
3r
8r
0r
1r̄
2r̄
5N
5N
5N
2N
1N
3H
4H
5H
7H
8H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

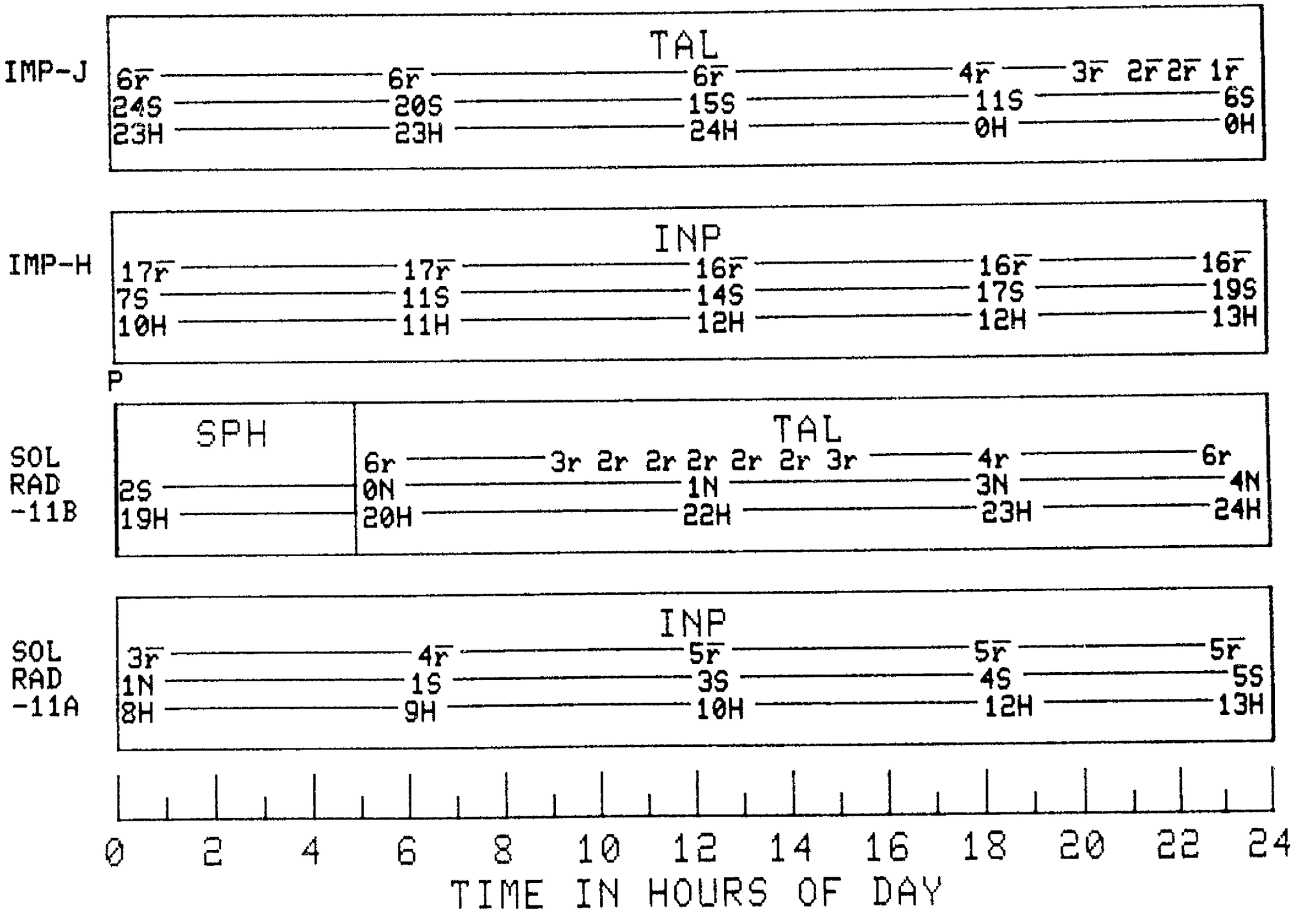
DAY 361 1977

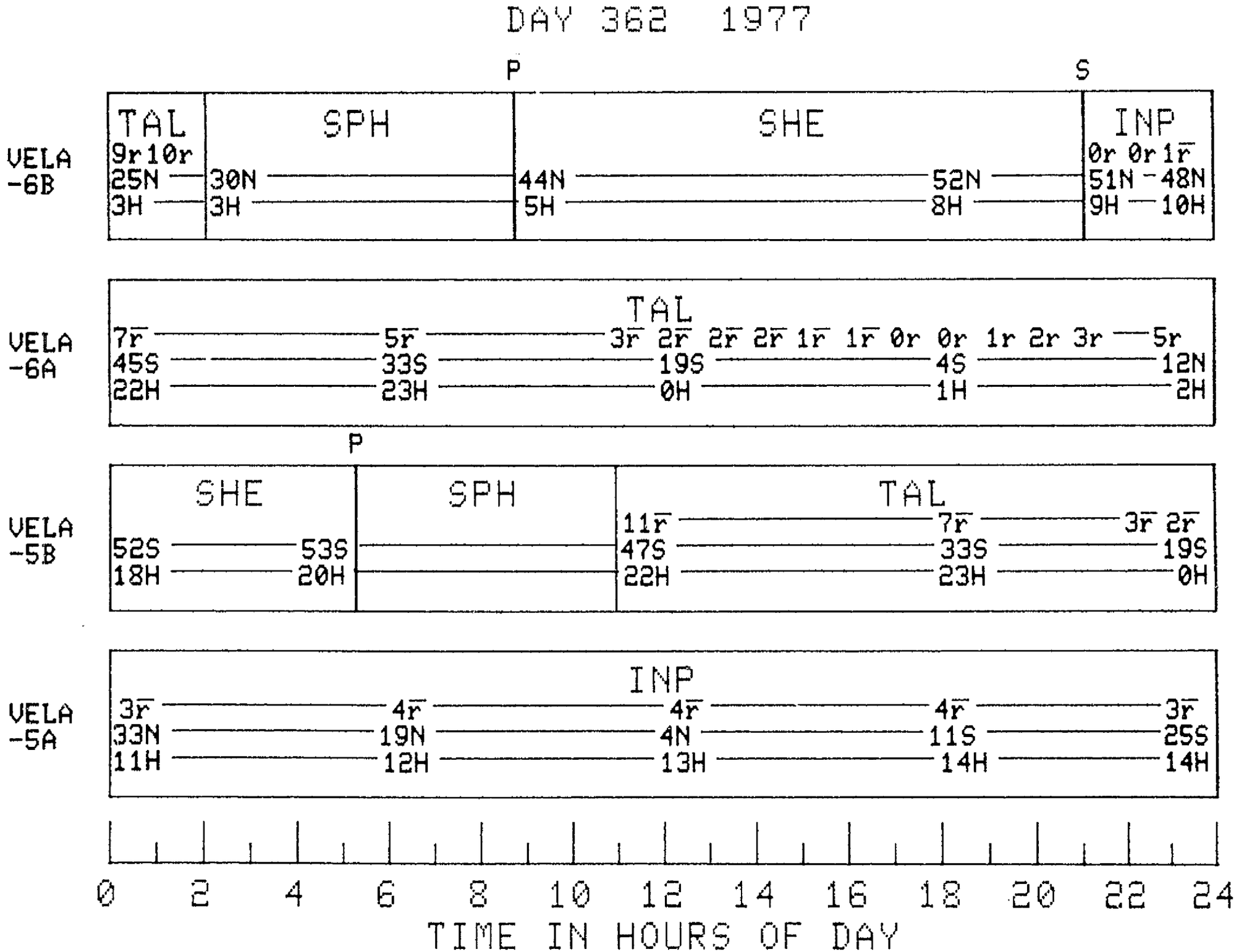

VELA -6B
TAL
5r̄ 3r̄ 2r̄ 2r̄ 1r̄ 0r 0r 1r 1r 2r 2r 3r 4r 8r
35S 21S 6S 10N 25N
23H 0H 1H 2H 3H
S
P
VELA -6A
SHE
SPH
TAL
0r 9r
32S 44S 53S 45S
15H 17H 20H 22H
8r̄ 7r̄
S
VELA -5B
INP
SHE
4r̄ 3r̄ 1r̄ 5r
10S 23S 38S 52S
14H 14H 16H 18H
P
S
VELA -5A
SPH
SHE
INP
7r
41N 47N 53N 0r 1r̄ 3r̄
4H 5H 8H 50N 33N
9H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 361 1977

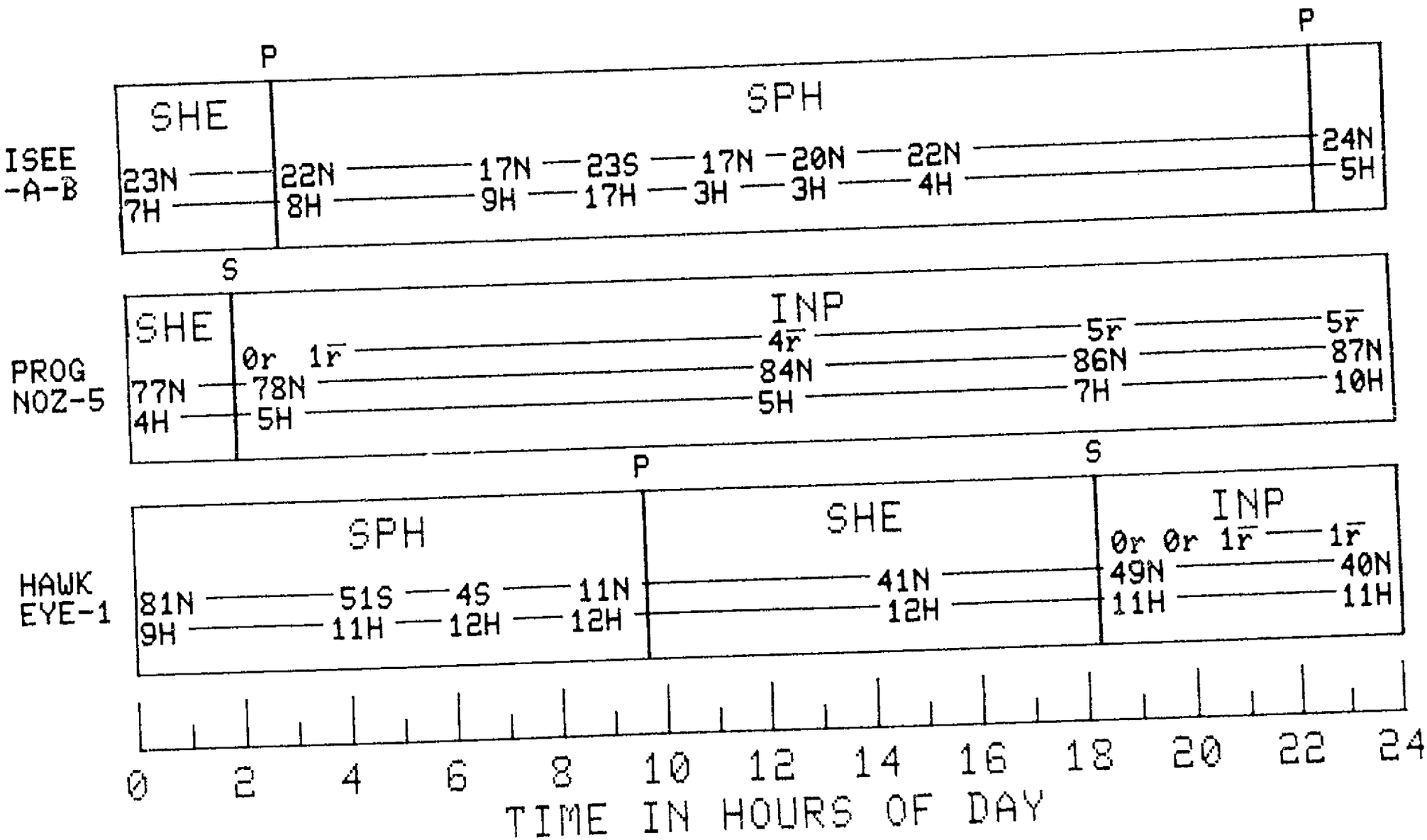

S
S
SHE
INP
SHE
0r 0r 0r 0r 0r 0r 0r 0r 0r 0r
ISEE
-A-B
24N
24N
24N
24N
23N
6H
6H
6H
7H
7H
P
SPH
SHE
PROG
NOZ-5
19N
53S
33N
48N
56N
66N
77N
16H
4H
4H
4H
4H
4H
4H
S
P C
C
INP
SHE
SPH
1r 1r 0r 0r
HAWK
EYE-1
43N
40N
60N
78N
80N
11H
12H
14H
12H
9H
0
2
4
6
8
10
12
14
16
18
20
22
24
TIME IN HOURS OF DAY

DAY 362 1977

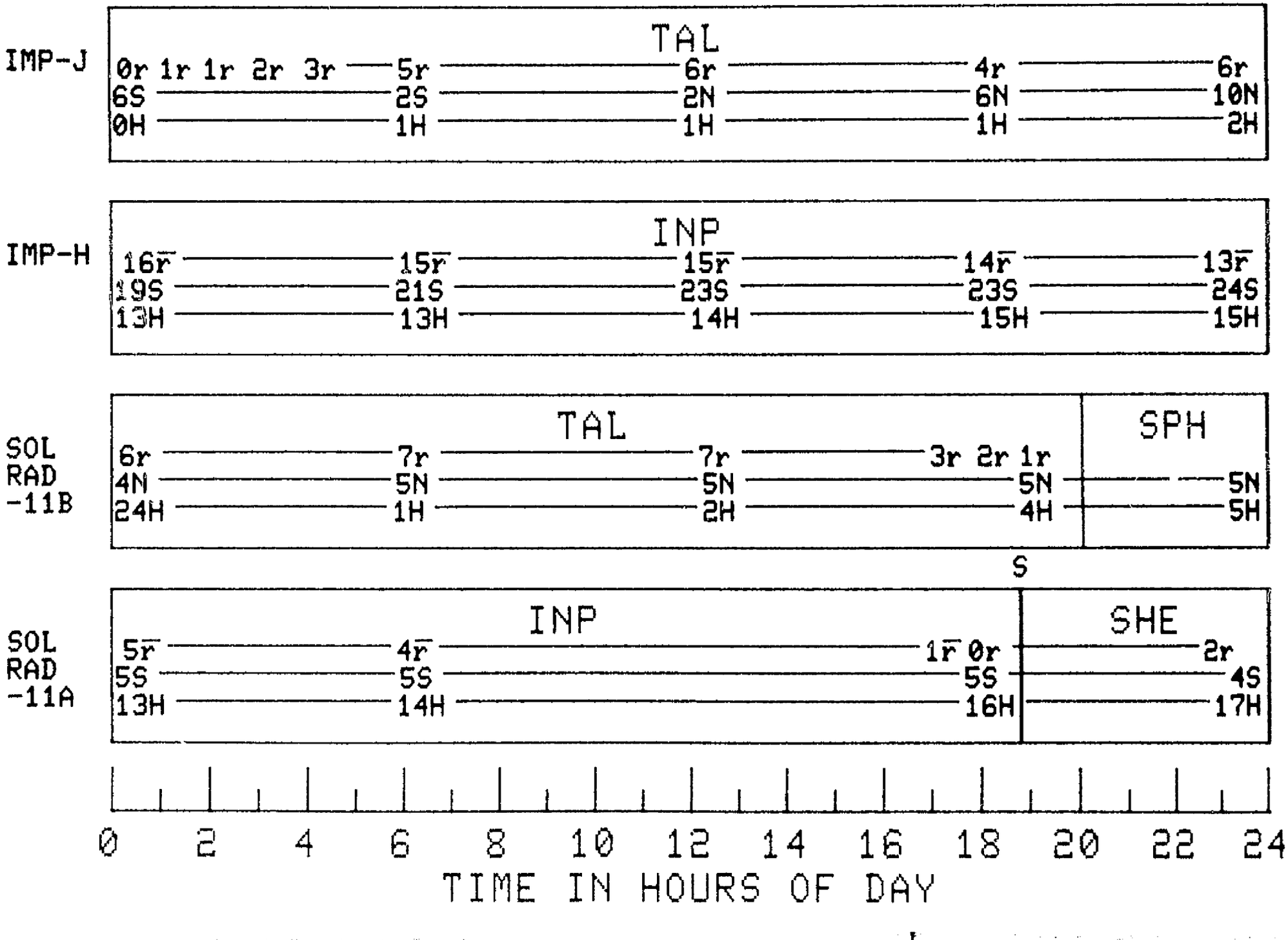

IMP-J
TAL
6r 6r 6r 4r 3r 2r 2r 1r
24S 20S 15S 11S 6S
23H 23H 24H 0H 0H
IMP-H
INP
17r 17r 16r 16r 16r
7S 11S 14S 17S 19S
10H 11H 12H 12H 13H
P
SOL
RAD
-11B
SPH
2S
19H
TAL
6r 3r 2r 2r 2r 2r 2r 3r 4r 6r
0N 1N 3N 4N
20H 22H 23H 24H
SOL
RAD
-11A
INP
3r 4r 5r 5r 5r
1N 1S 3S 4S 5S
8H 9H 10H 12H 13H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 362 1977
P
S
VELA -6B
TAL
9r 10r
25N
3H
SPH
30N
3H
SHE
44N
5H
52N
8H
INP
0r 0r 1r̄
51N 48N
9H 10H
VELA -6A
TAL
7r̄ 5r̄ 3r̄ 2r̄ 2r̄ 2r̄ 1r̄ 1r̄ 0r 0r 1r 2r 3r 5r
45S 33S 19S 4S 12N
22H 23H 0H 1H 2H
P
VELA -5B
SHE
52S 53S
18H 20H
SPH
TAL
11r̄ 7r̄ 3r̄ 2r̄
47S 33S 19S
22H 23H 0H
VELA -5A
INP
3r̄ 4r̄ 4r̄ 4r̄ 3r̄
33N 19N 4N 11S 25S
11H 12H 13H 14H 14H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

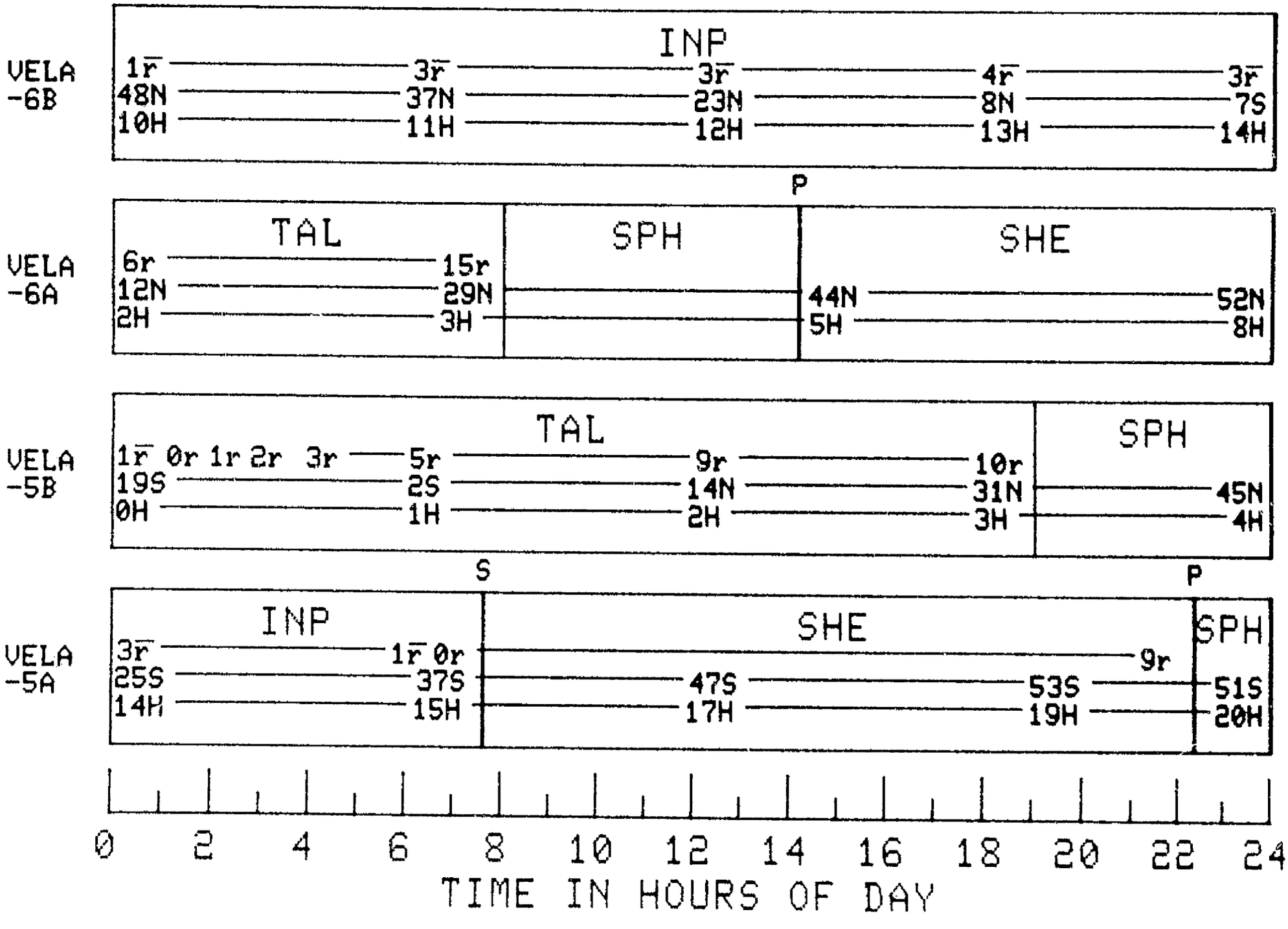
DAY 362 1977


P
P
SHE
SPH
ISEE
-A-B
23N
7H
22N
8H
17N
9H
23S
17N
3H
20N
3H
22N
4H
24N
5H
S
SHE
INP
PROG
NOZ-5
77N
4H
0r
78N
5H
1r
4r
84N
5H
5r
86N
7H
5r
87N
10H
P
S
SPH
SHE
INP
HAWK
EYE-1
81N
9H
51S
11H
4S
12H
11N
12H
41N
12H
0r 0r 1r
49N
11H
1r
40N
11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

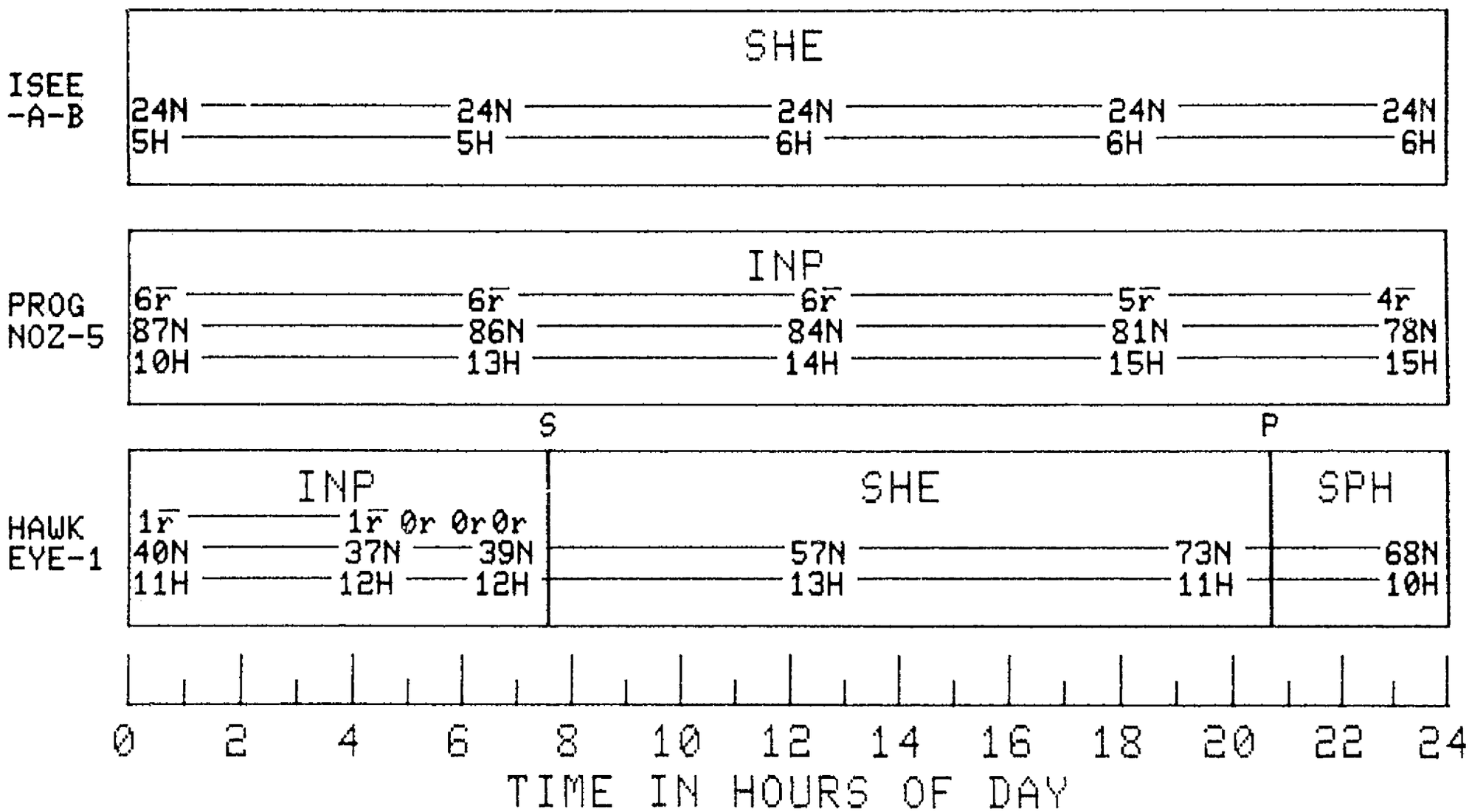
DAY 363 1977


IMP-J
TAL
0r 1r 1r 2r 3r
5r
6r
4r
6r
6S
2S
2N
6N
10N
0H
1H
1H
1H
2H
IMP-H
INP
16r̄
15r̄
15r̄
14r̄
13r̄
19S
21S
23S
23S
24S
13H
13H
14H
15H
15H
SOL RAD -11B
TAL
SPH
6r
7r
7r
3r 2r 1r
4N
5N
5N
5N
5N
24H
1H
2H
4H
5H
S
SOL RAD -11A
INP
SHE
5r̄
4r̄
1r̄ 0r
2r
5S
5S
5S
4S
13H
14H
16H
17H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

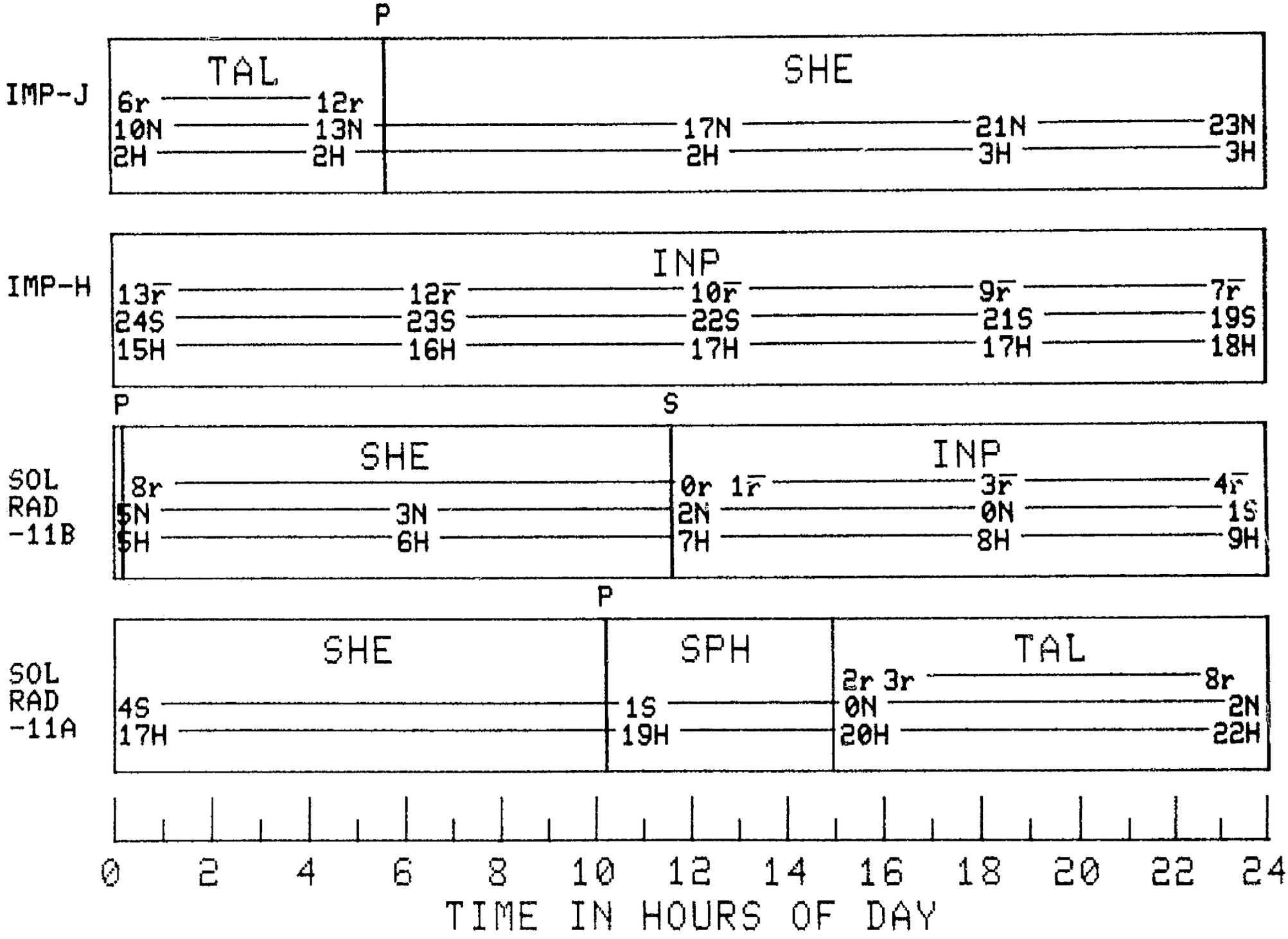
DAY 363 1977


VELA -6B
INP
1r 3r 3r 4r 3r
48N 37N 23N 8N 7S
10H 11H 12H 13H 14H
P
VELA -6A
TAL
SPH
SHE
6r 15r
12N 29N
2H 3H
44N 52N
5H 8H
VELA -5B
TAL
SPH
1r 0r 1r 2r 3r 5r 9r 10r
19S 2S 14N 31N 45N
0H 1H 2H 3H 4H
S
P
VELA -5A
INP
SHE
SPH
3r 1r 0r 9r
25S 37S 47S 53S 51S
14H 15H 17H 19H 20H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

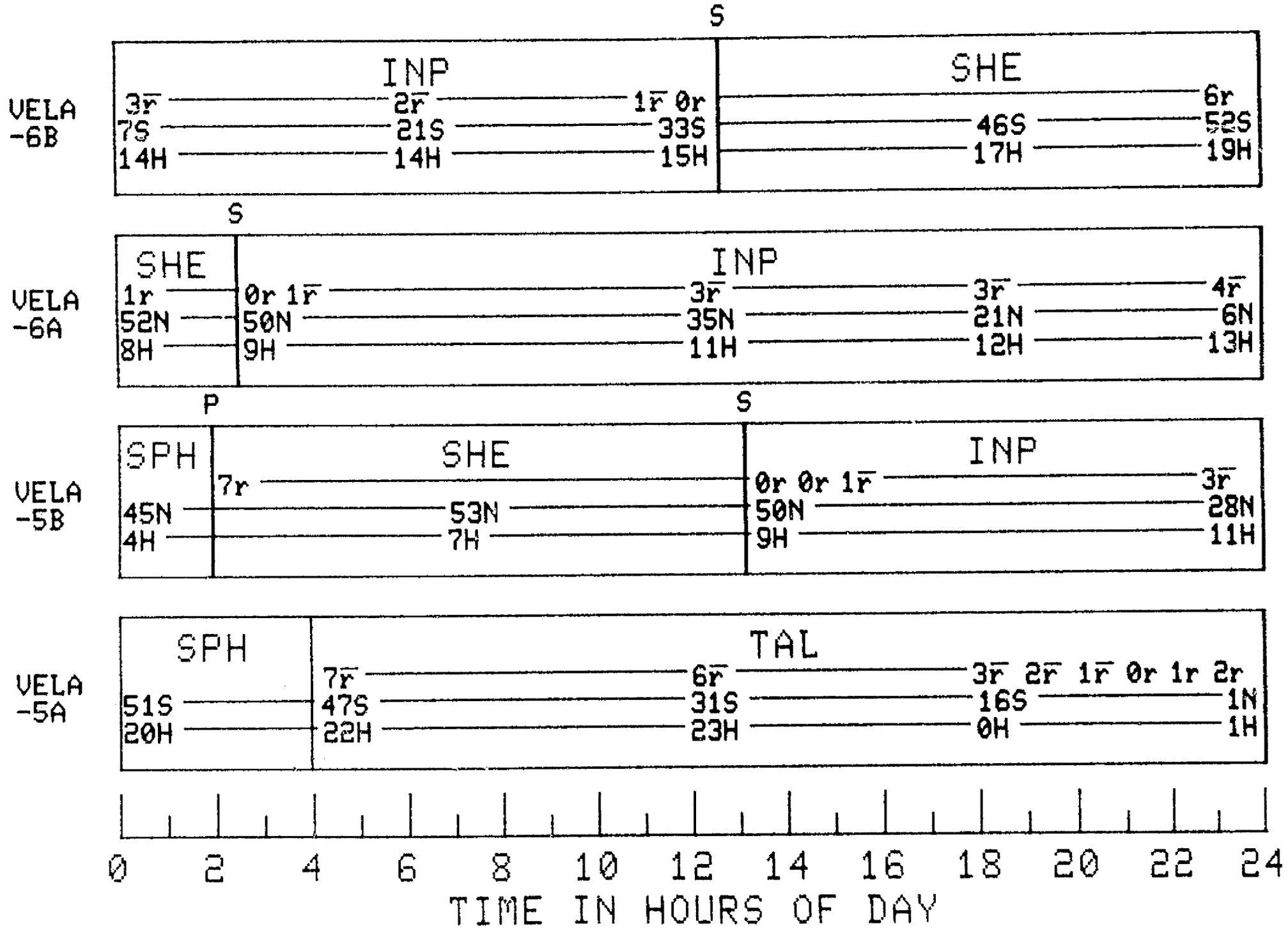
DAY 363 1977


ISEE
-A-B
SHE
24N 24N 24N 24N 24N
5H 5H 6H 6H 6H
PROG
NOZ-5
INP
6r 6r 6r 5r 4r
87N 86N 84N 81N 78N
10H 13H 14H 15H 15H
S
P
HAWK
EYE-1
INP
SHE
SPH
1r 1r 0r 0r 0r
40N 37N 39N 57N 73N 68N
11H 12H 12H 13H 11H 10H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

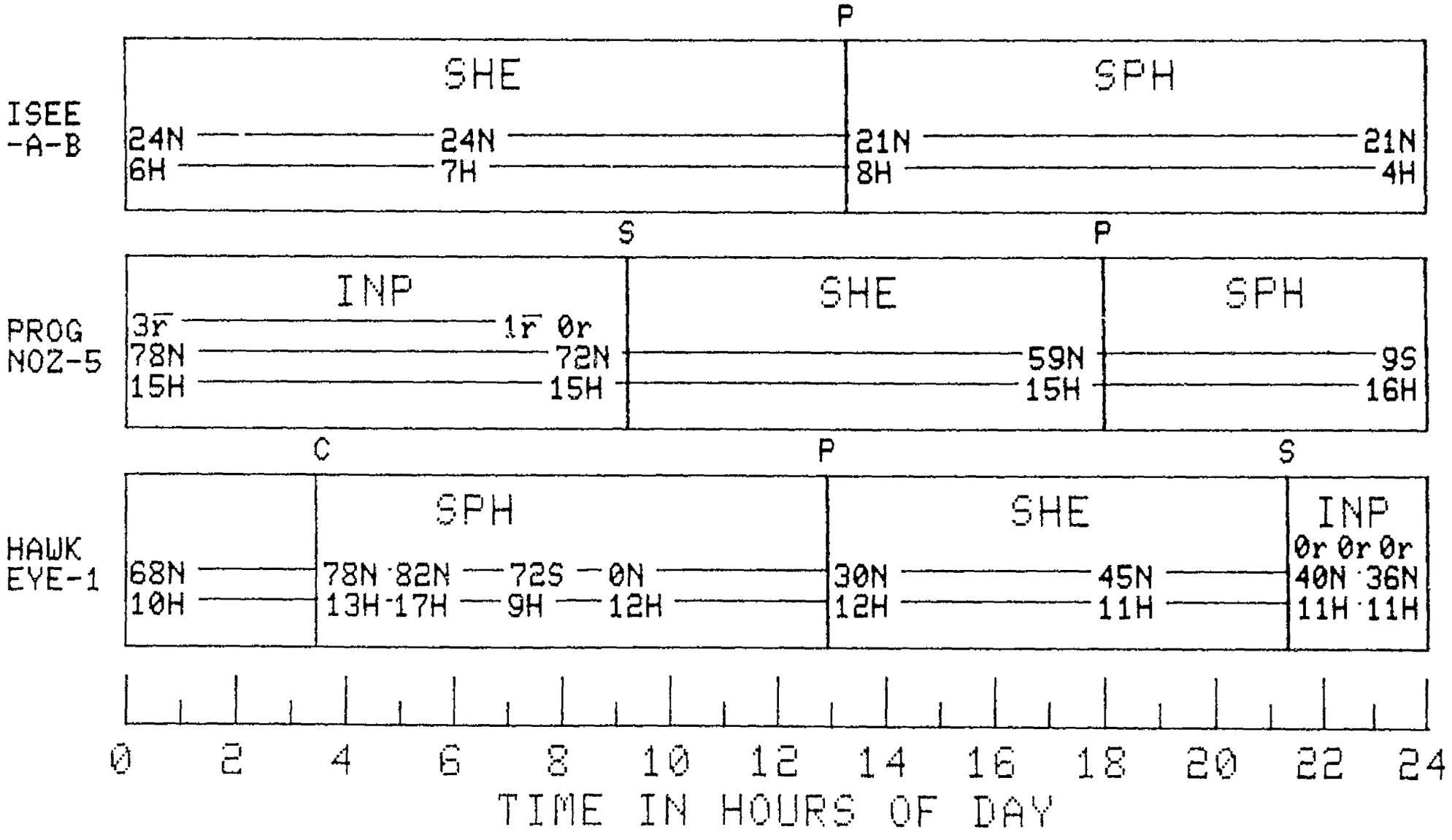
DAY 364 1977

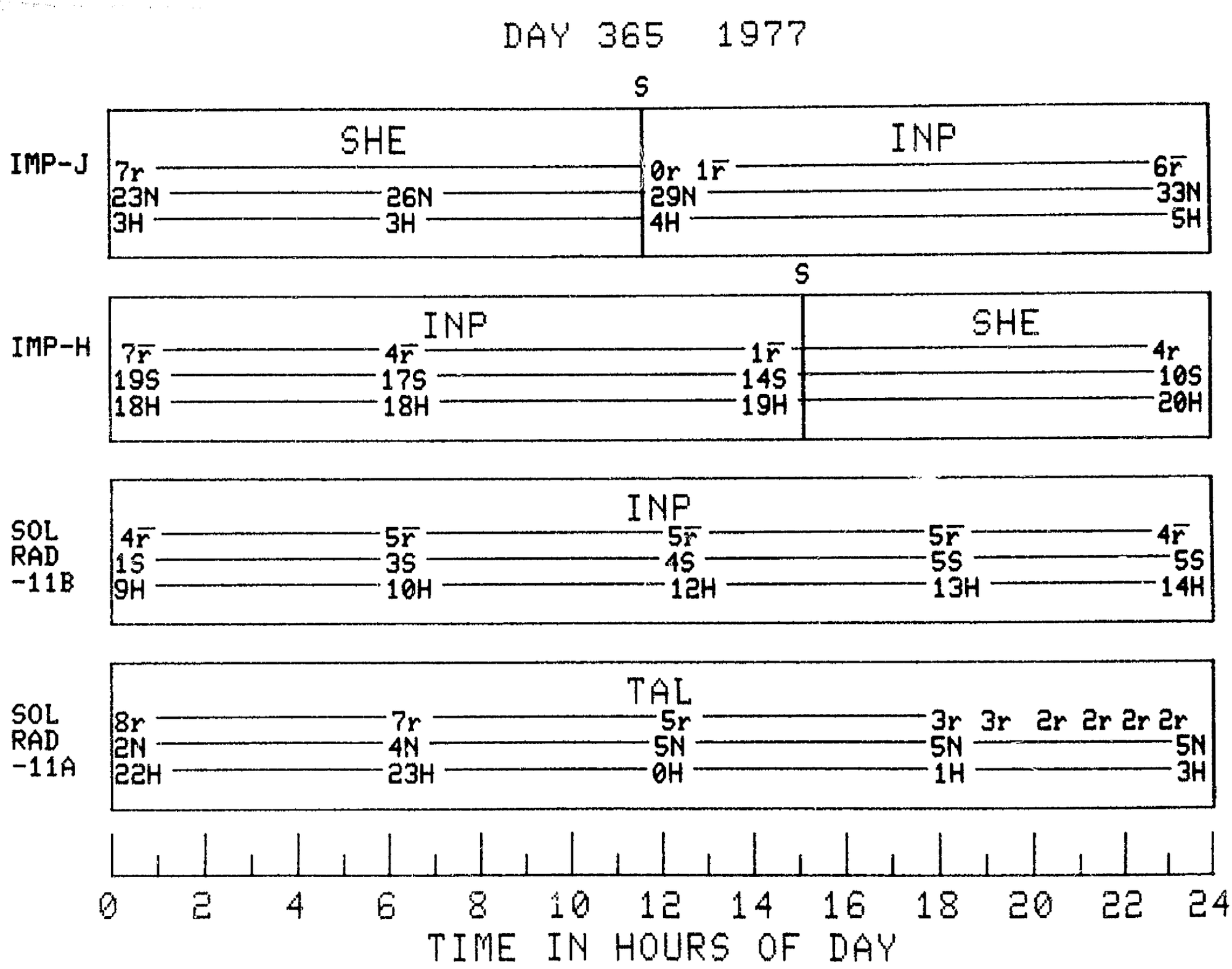

P
IMP-J
TAL
SHE
6r 12r
10N 13N 17N 21N 23N
2H 2H 2H 3H 3H
IMP-H
INP
13r̄ 12r̄ 10r̄ 9r̄ 7r̄
24S 23S 22S 21S 19S
15H 16H 17H 17H 18H
P
S
SOL RAD -11B
SHE
INP
8r 0r 1r̄ 3r̄ 4r̄
5N 3N 2N 0N 1S
5H 6H 7H 8H 9H
P
SOL RAD -11A
SHE
SPH
TAL
4S 1S 2r 3r 8r
17H 19H 0N 2N
20H 22H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 364 1977

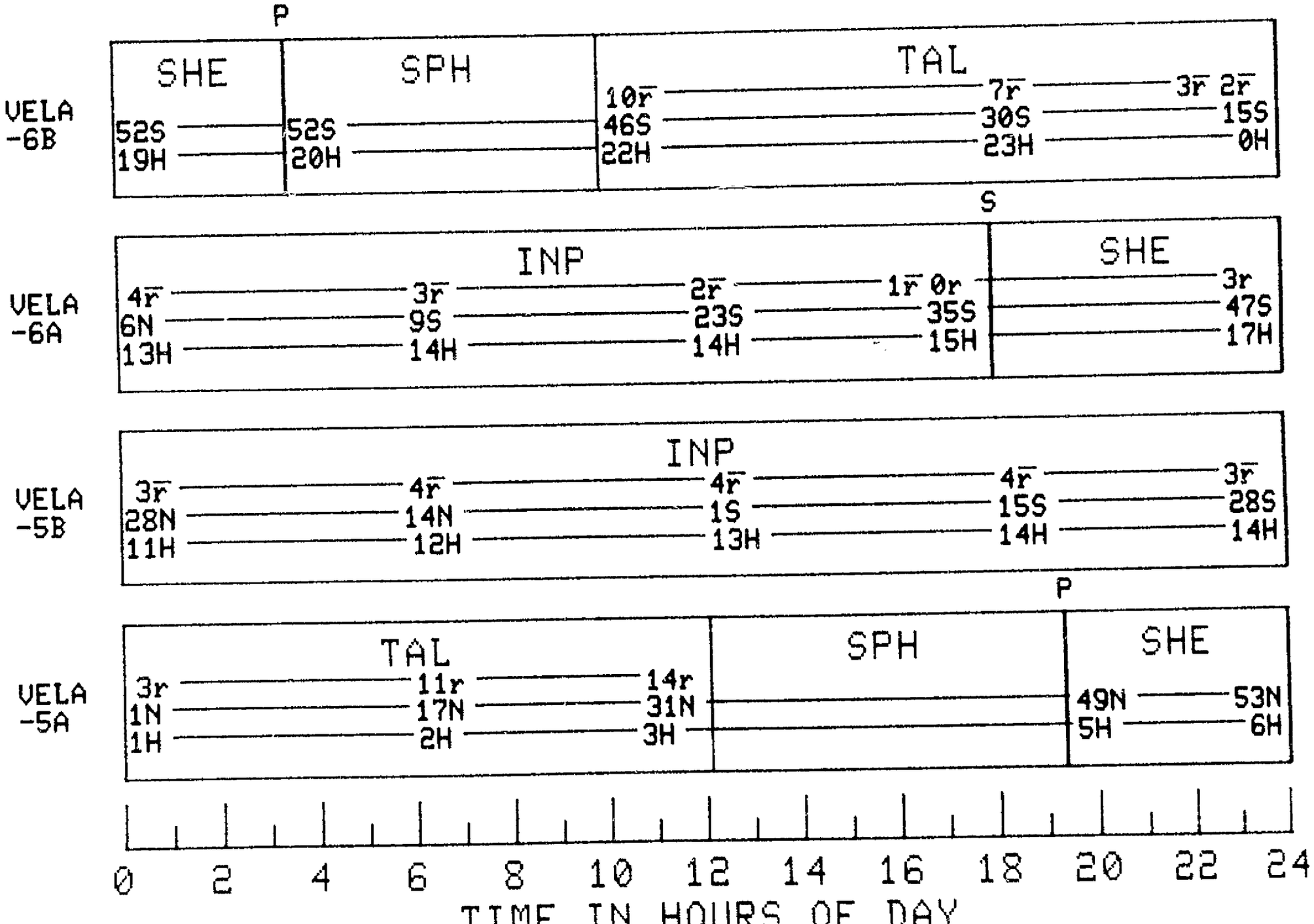

S
INP
SHE
VELA -6B
3r̄ 2r̄ 1r̄ 0r 6r
7S 21S 33S 46S 52S
14H 14H 15H 17H 19H
S
SHE
INP
VELA -6A
1r 0r 1r̄ 3r̄ 3r̄ 4r̄
52N 50N 35N 21N 6N
8H 9H 11H 12H 13H
P
S
SPH
SHE
INP
VELA -5B
7r 0r 0r 1r̄ 3r̄
45N 53N 50N 28N
4H 7H 9H 11H
SPH
TAL
VELA -5A
7r̄ 6r̄ 3r̄ 2r̄ 1r̄ 0r 1r 2r
51S 47S 31S 16S 1N
20H 22H 23H 0H 1H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 364 1977

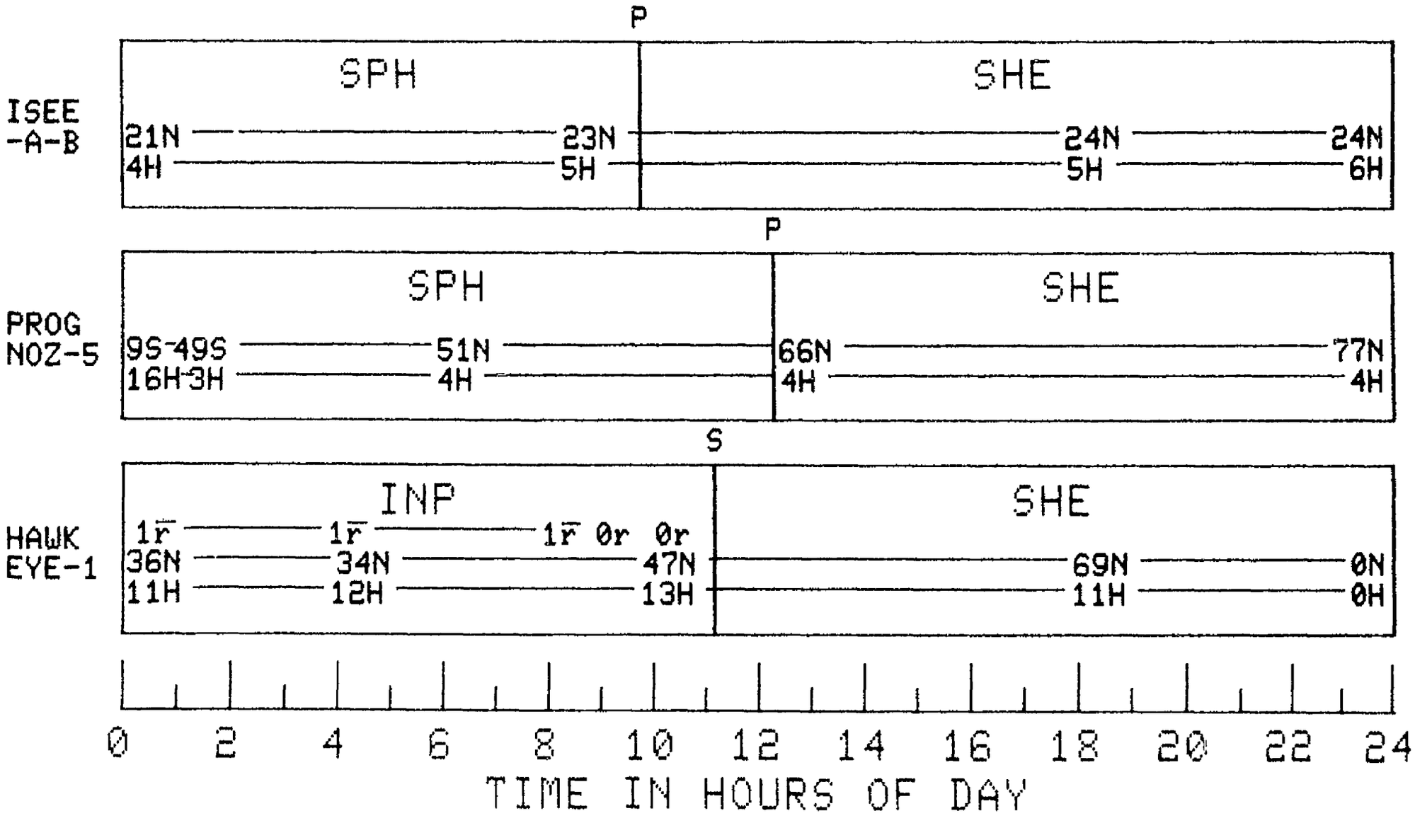

P
SHE
SPH
ISEE
-A-B
24N
6H
24N
7H
21N
8H
21N
4H
S
P
INP
SHE
SPH
PROG
NOZ-5
3r̄
78N
15H
1r̄ 0r
72N
15H
59N
15H
9S
16H
C
P
S
SPH
SHE
INP
HAWK
EYE-1
68N
10H
78N 82N
13H 17H
72S
9H
0N
12H
30N
12H
45N
11H
0r 0r 0r
40N 36N
11H 11H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY


DAY 365 1977
S
IMP-J
SHE
INP
7r
23N
3H
26N
3H
0r 1r
29N
4H
6r
33N
5H
S
IMP-H
INP
SHE
7r
19S
18H
4r
17S
18H
1r
14S
19H
4r
10S
20H
SOL RAD -11B
INP
4r
1S
9H
5r
3S
10H
5r
4S
12H
5r
5S
13H
4r
5S
14H
SOL RAD -11A
TAL
8r
2N
22H
7r
4N
23H
5r
5N
0H
3r 3r 2r 2r 2r 2r
5N
1H
5N
3H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 365 1977


VELA -6B
P
SHE
52S
19H
SPH
52S
20H
TAL
10r
46S
22H
7r
30S
23H
3r 2r
15S
0H
VELA -6A
S
INP
4r
6N
13H
3r
9S
14H
2r
23S
14H
1r 0r
35S
15H
SHE
3r
47S
17H
VELA -5B
INP
3r
28N
11H
4r
14N
12H
4r
1S
13H
4r
15S
14H
3r
28S
14H
VELA -5A
P
TAL
3r
1N
1H
11r
17N
2H
14r
31N
3H
SPH
SHE
49N
5H
53N
6H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

DAY 365 1977

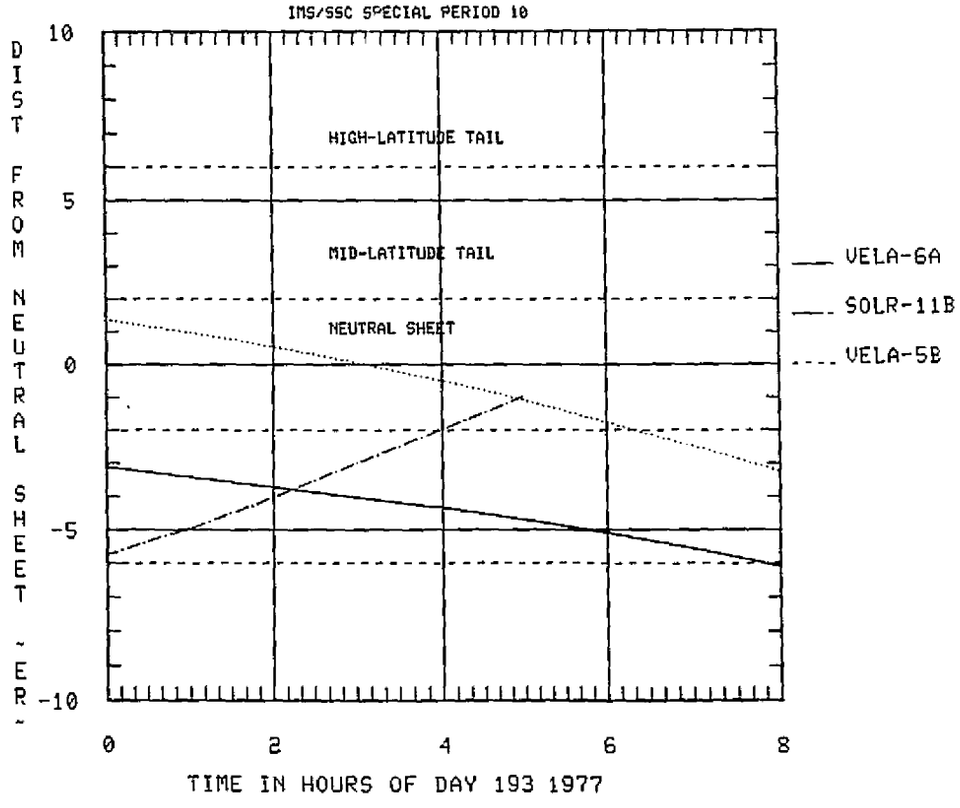

P
SPH
SHE
ISEE
-A-B
21N
23N
24N
24N
4H
5H
5H
6H
P
SPH
SHE
PROG
NOZ-5
9S-49S
51N
66N
77N
16H-3H
4H
4H
4H
S
INP
SHE
HAWK
EYE-1
1r
1r
1r 0r 0r
36N
34N
47N
69N
0N
11H
12H
13H
11H
0H
0 2 4 6 8 10 12 14 16 18 20 22 24
TIME IN HOURS OF DAY

APPENDIX B

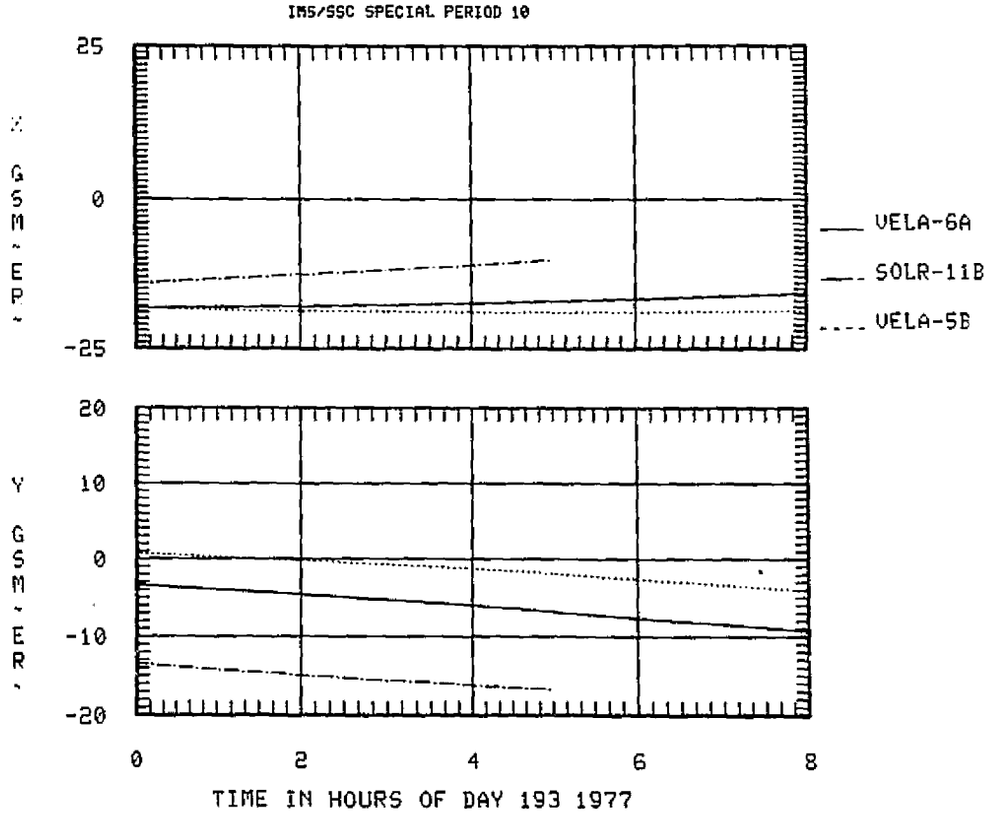
DETAILED PLOTS
FOR THE IMS/SSC SPECIAL PERIODS

NEUTRAL SHEET PLOT

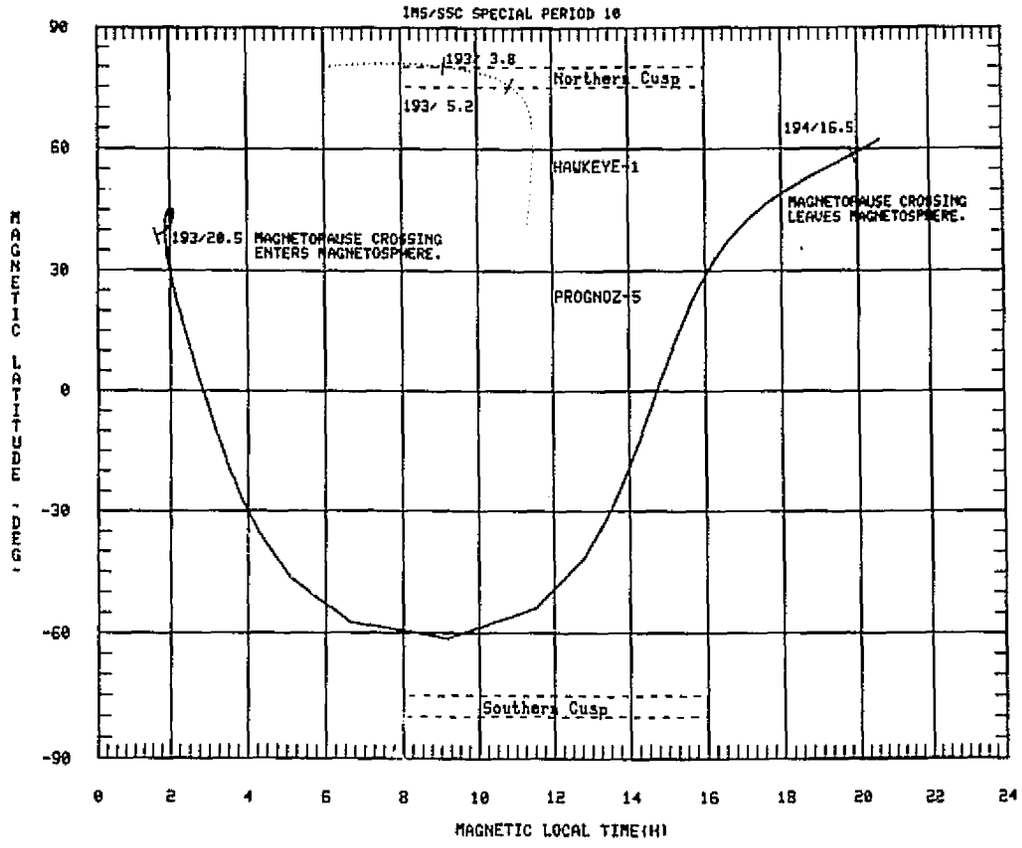
SAT ID: VELA-6A SOLR-11B VELA-5B



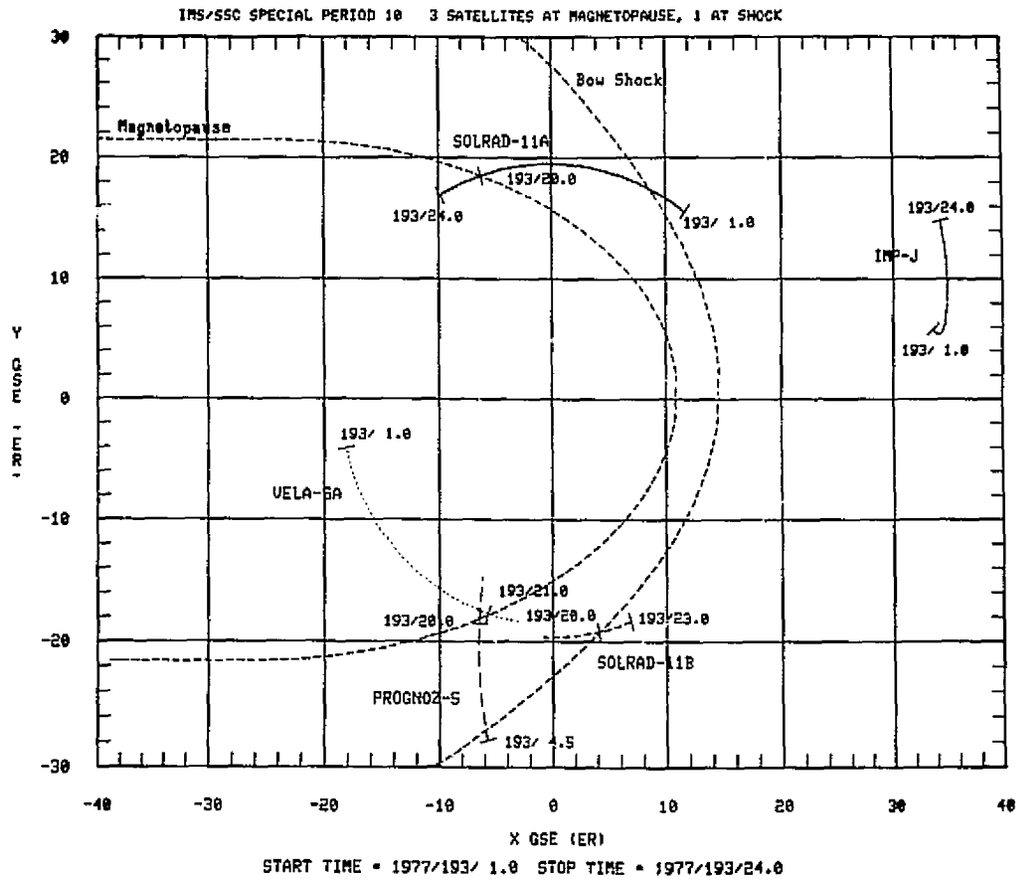
NEUTRAL SHEET PLOT
SAT ID: VELA-6A SOLR-11B VELA-5B
GSM CARTESIAN COORDINATES



MAGNETIC LATITUDE-MAGNETIC LOCAL TIME PROJECTION

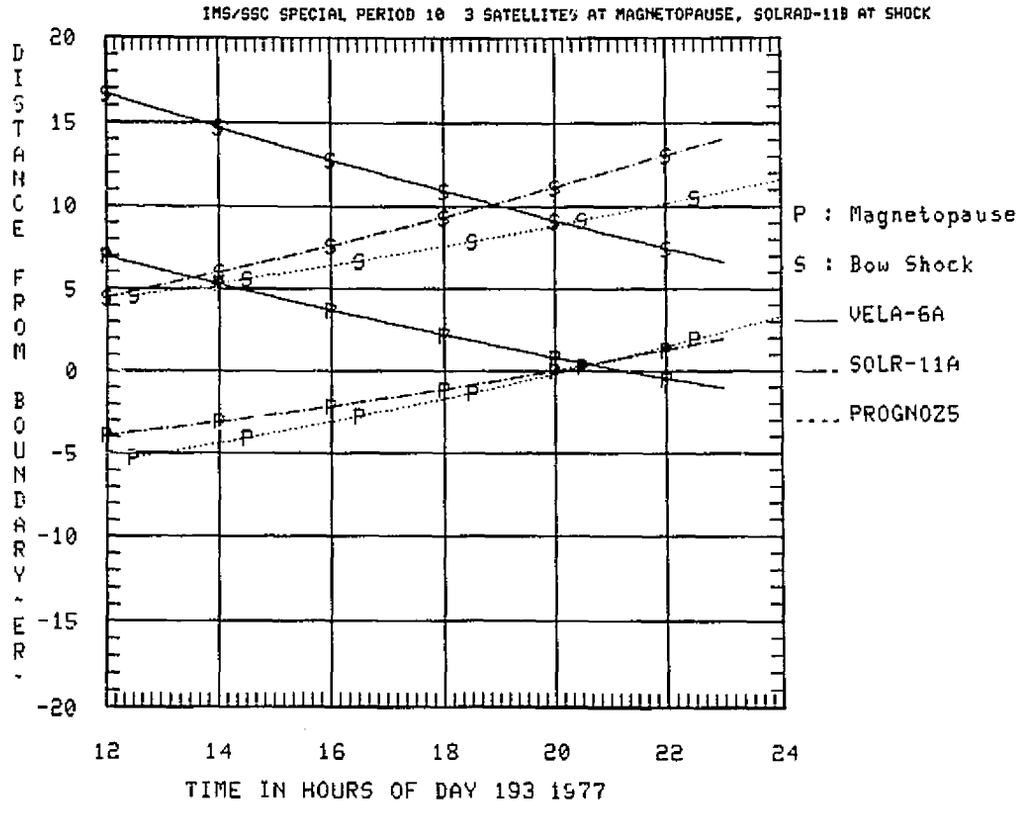


GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

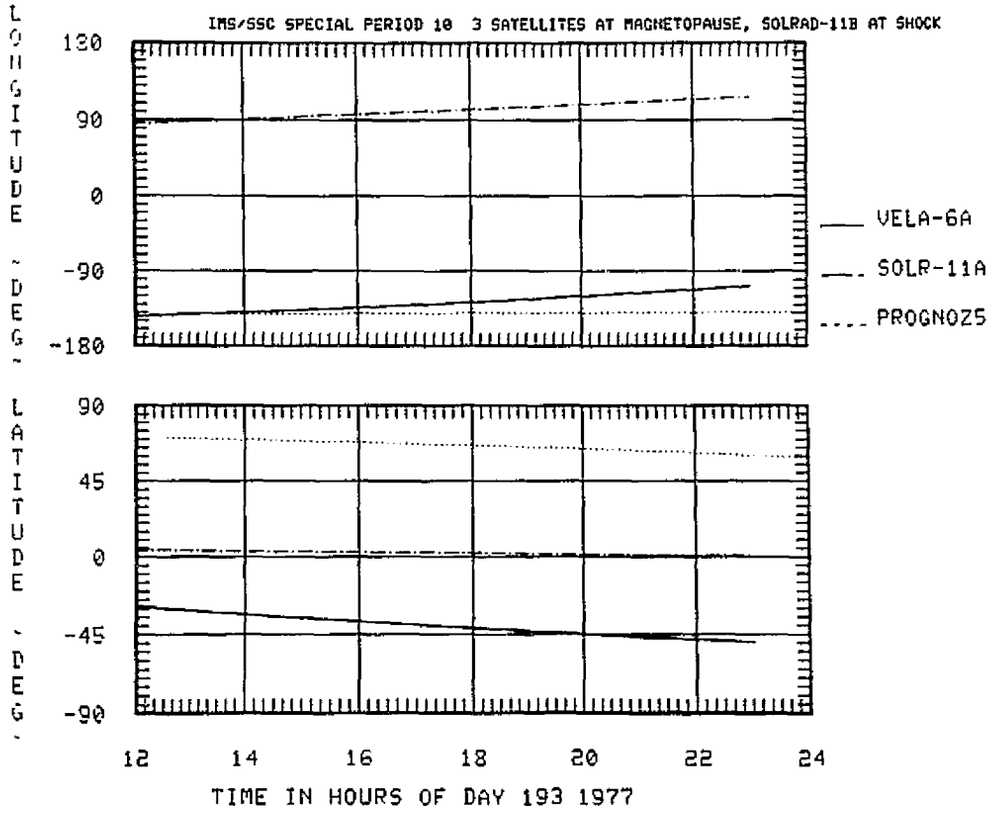


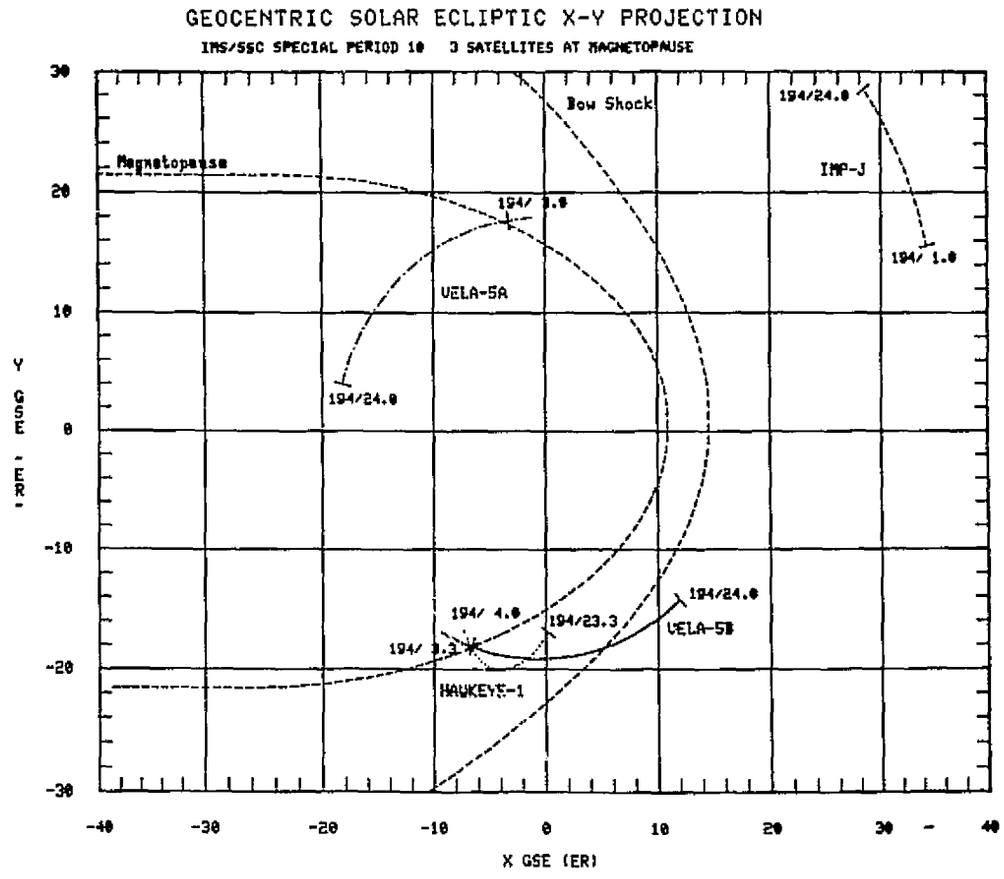
BOUNDARY PLOT

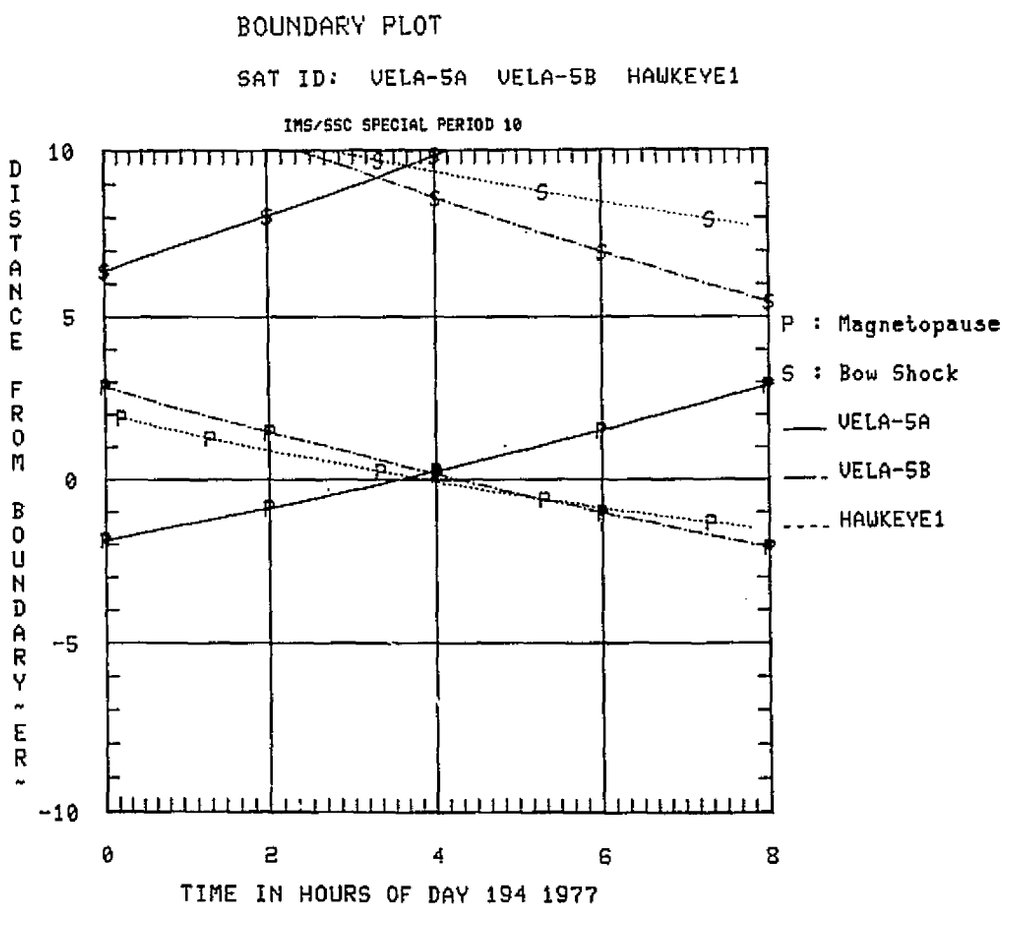
SAT ID: VELA-6A SOLR-11A PROGNOZ5



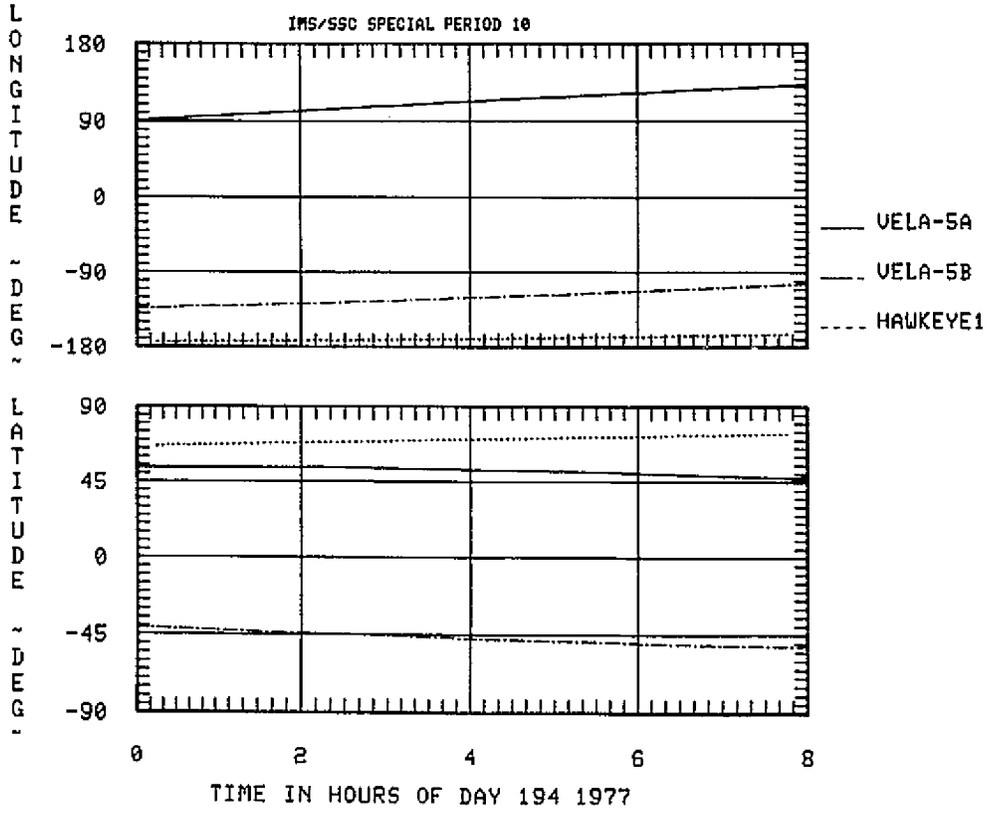
BOUNDARY PLOT
SAT ID: VELA-6A SOLR-11A PROGNOZ5
ECLIPTIC POLAR COORDINATES



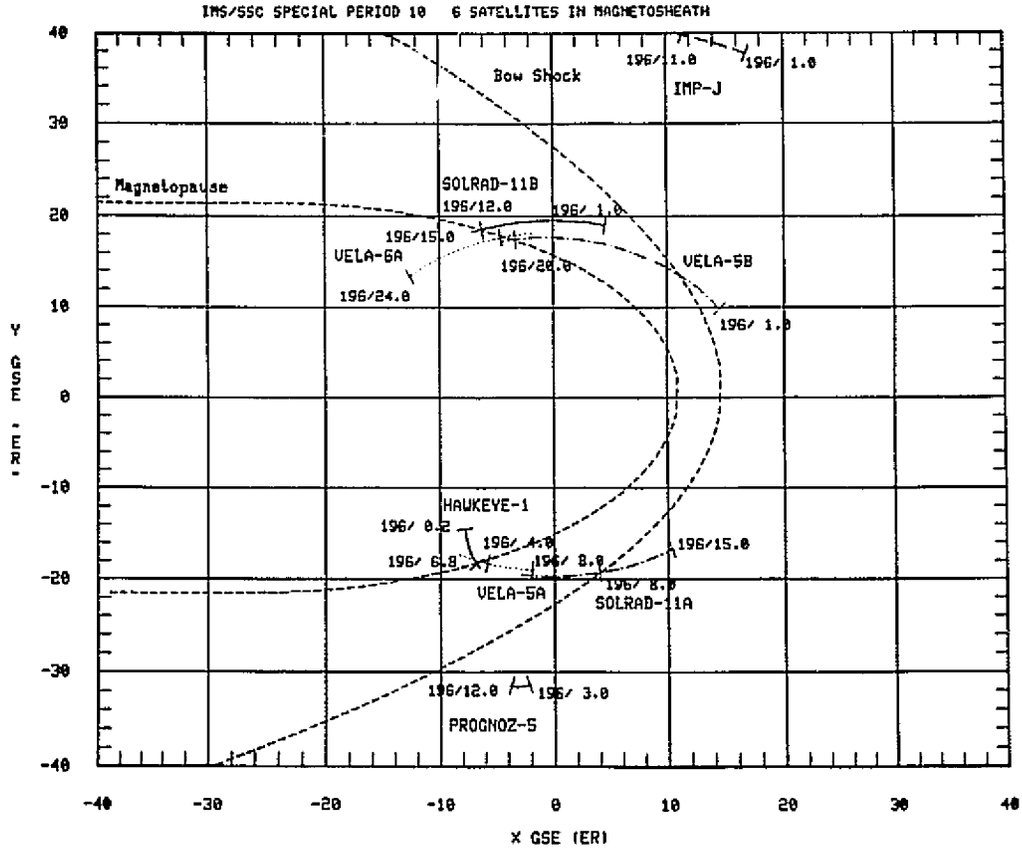

GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION
IMS/SSC SPECIAL PERIOD 10 3 SATELLITES AT MAGNETOPAUSE
Bow Shock
Magnetopause
194/24.0
IMP-J
194/ 1.0
VELA-5A
194/24.0
194/ 4.0
194/23.3
194/24.0
VELA-5B
194/ 3.3
HAWKEYE-1
Y GSE - ER -
X GSE (ER)
30
20
10
0
-10
-20
-30
-40
-30
-20
-10
0
10
20
30
40


BOUNDARY PLOT
SAT ID: VELA-5A VELA-5B HAWKEYE1
IMS/SSC SPECIAL PERIOD 10
DISTANCE FROM BOUNDARY - ER -
TIME IN HOURS OF DAY 194 1977
P : Magnetopause
S : Bow Shock
VELA-5A
VELA-5B
HAWKEYE1
10
5
0
-5
-10
0
2
4
6
8

BOUNDARY PLOT
SAT ID: VELA-5A VELA-5B HAWKEYE1
ECLIPTIC POLAR COORDINATES

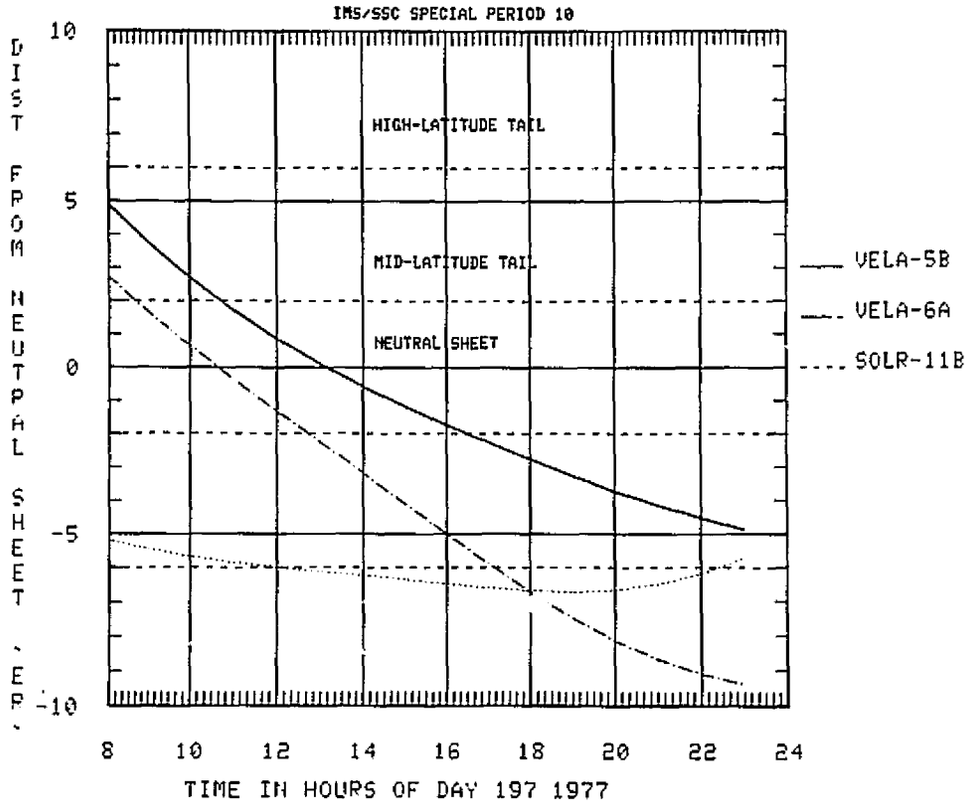


GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

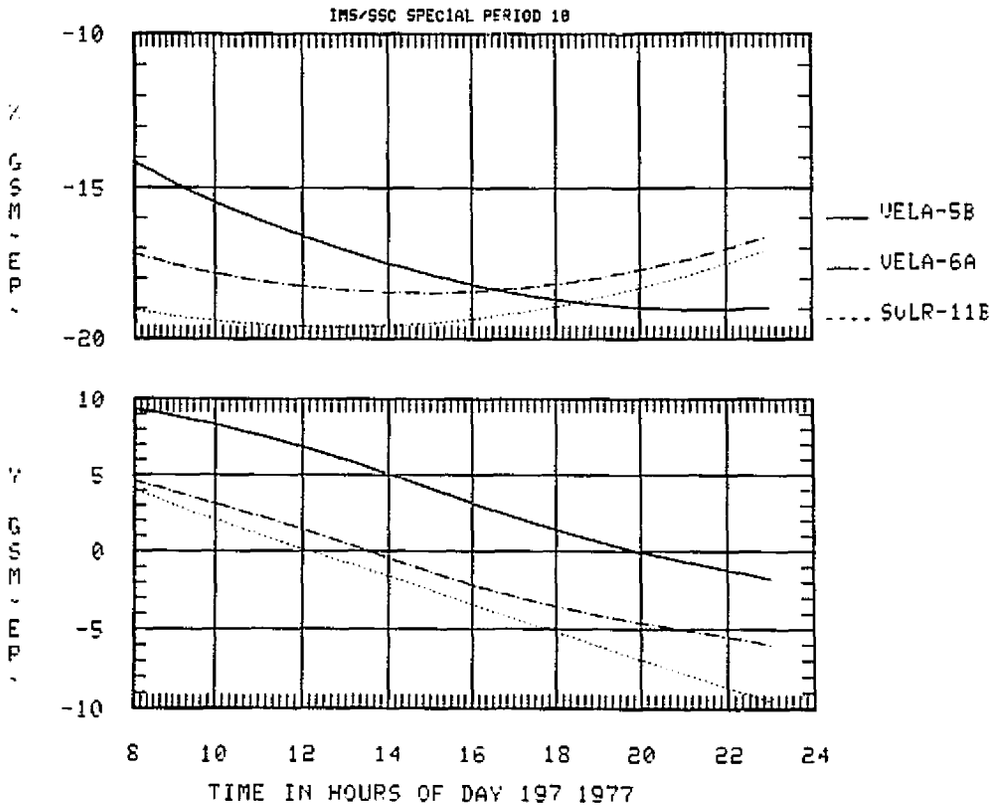


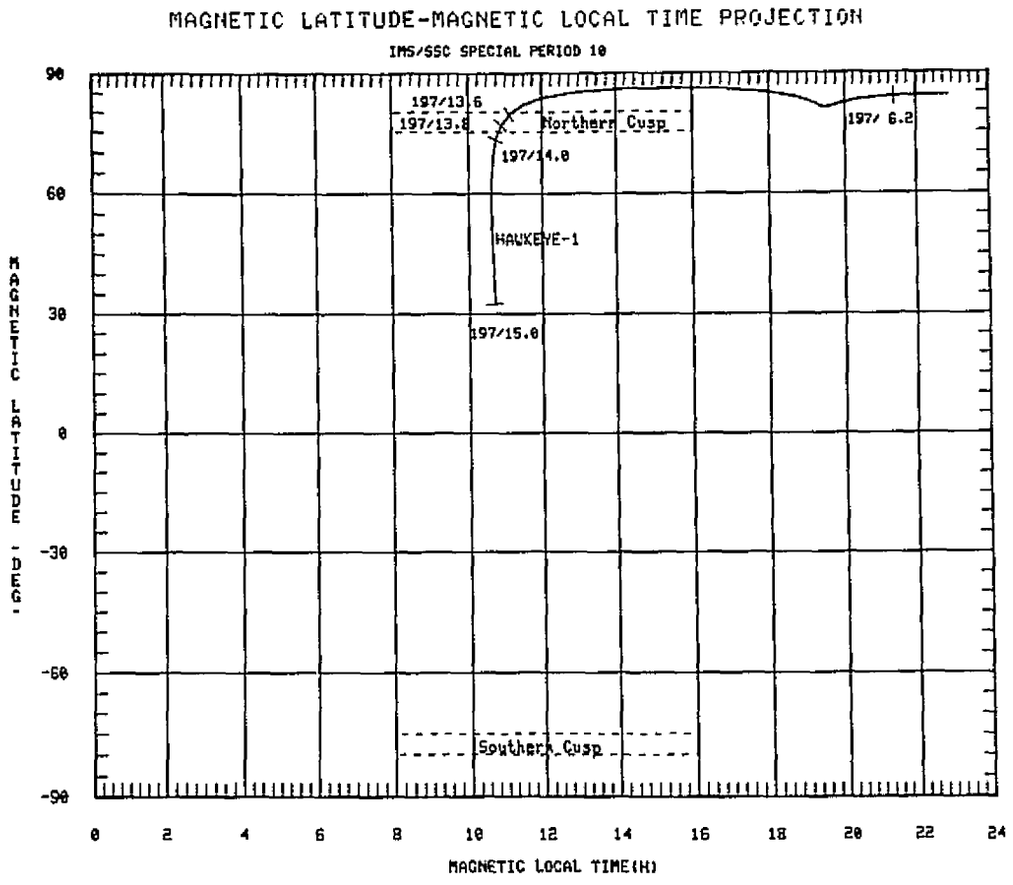
NEUTRAL SHEET PLOT

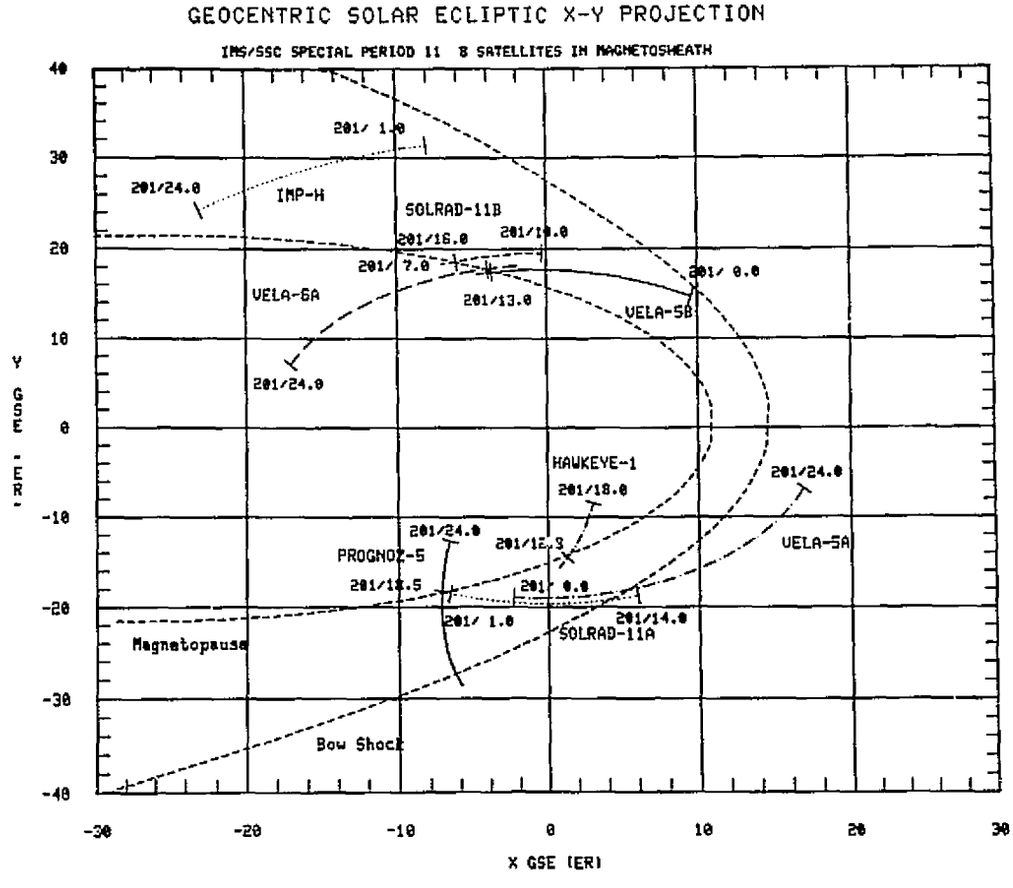
SAT ID: VELA-5B VELA-6A SOLR-11B



NEUTRAL SHEET PLOT
SAT ID: VELA-5B VELA-6A SOLR-11B
GSM CARTESIAN COORDINATES

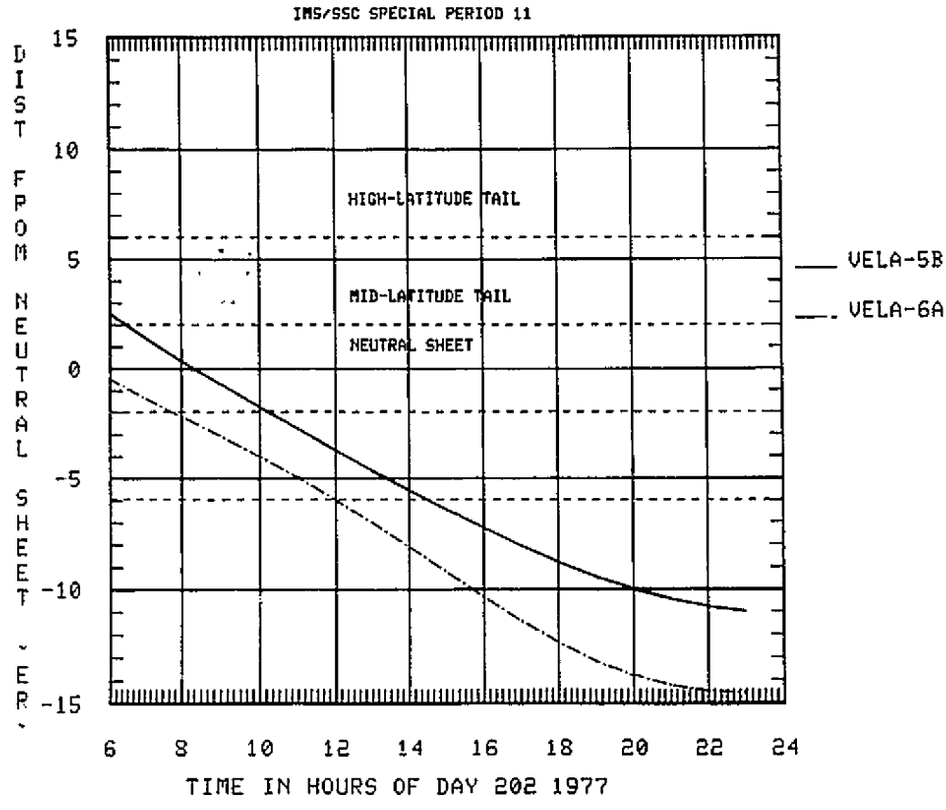



MAGNETIC LATITUDE-MAGNETIC LOCAL TIME PROJECTION
IMS/SSC SPECIAL PERIOD 10
197/13.6
197/13.8
Northern Cusp
197/ 6.2
197/14.0
HAWKEYE-1
197/15.0
Southern Cusp
MAGNETIC LATITUDE - DEG.
MAGNETIC LOCAL TIME(H)

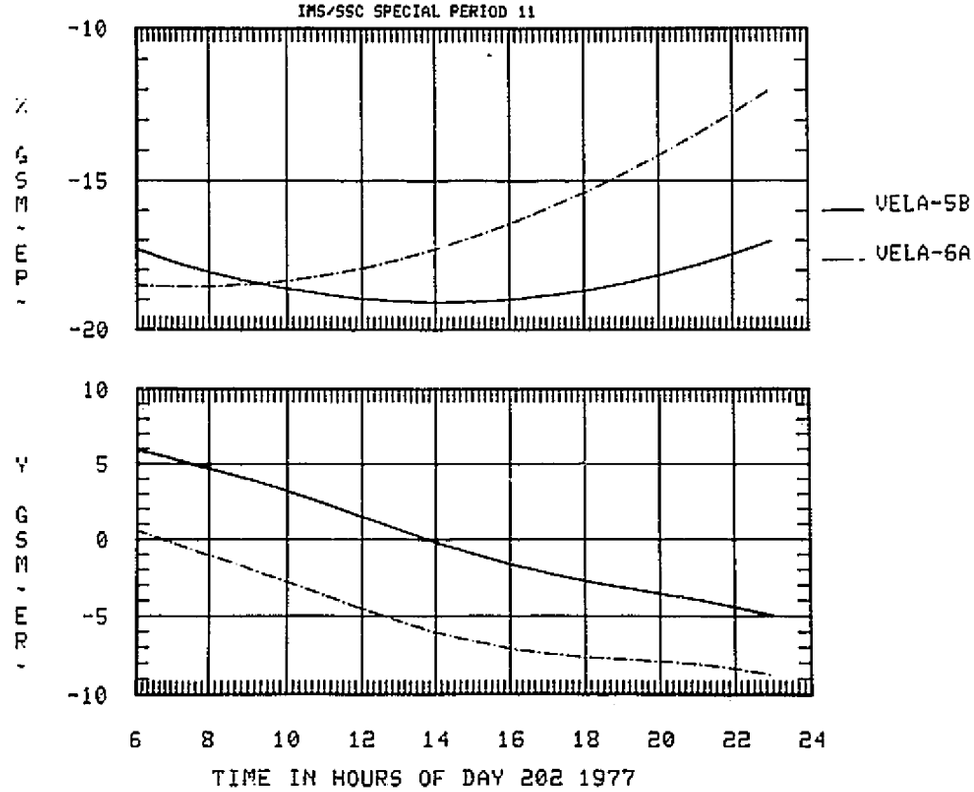

GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION
IMS/SSC SPECIAL PERIOD 11 8 SATELLITES IN MAGNETOSHEATH
201/ 1.0
201/24.0
IMP-H
SOLRAD-11B
201/16.0
201/10.0
201/ 7.0
201/ 0.0
VELA-6A
201/13.0
VELA-5B
201/24.0
HAWKEYE-1
201/18.0
201/24.0
201/24.0
PROGNOZ-5
201/12.3
VELA-5A
201/14.5
201/ 0.0
201/ 1.0
201/14.0
SOLRAD-11A
Magnetopause
Bow Shock
Y GSE (ER)
X GSE (ER)

NEUTRAL SHEET PLOT

SAT ID: VELA-5B VELA-6A

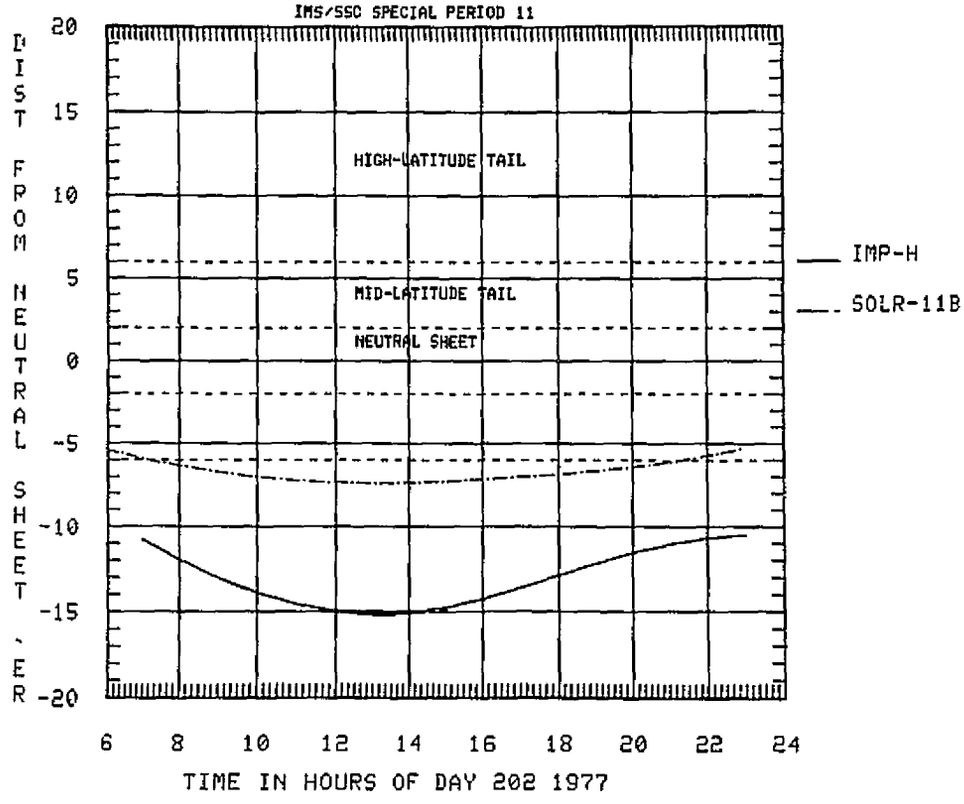


NEUTRAL SHEET PLOT
SAT ID: VELA-5B VELA-6A
GSM CARTESIAN COORDINATES

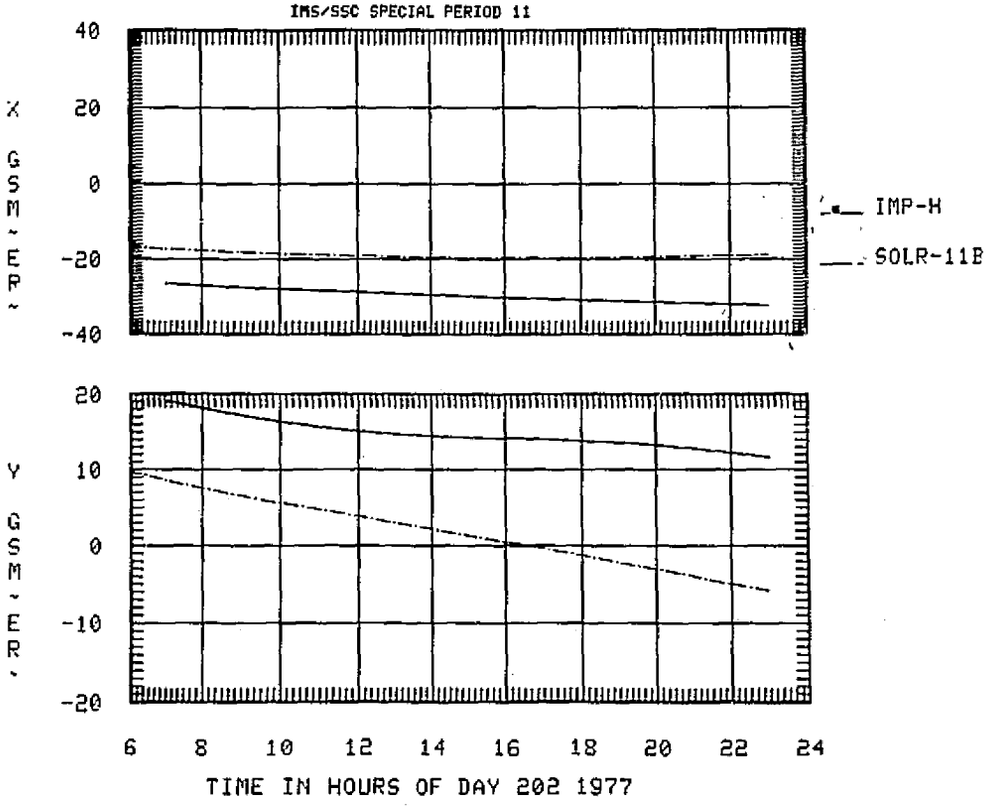


NEUTRAL SHEET PLOT

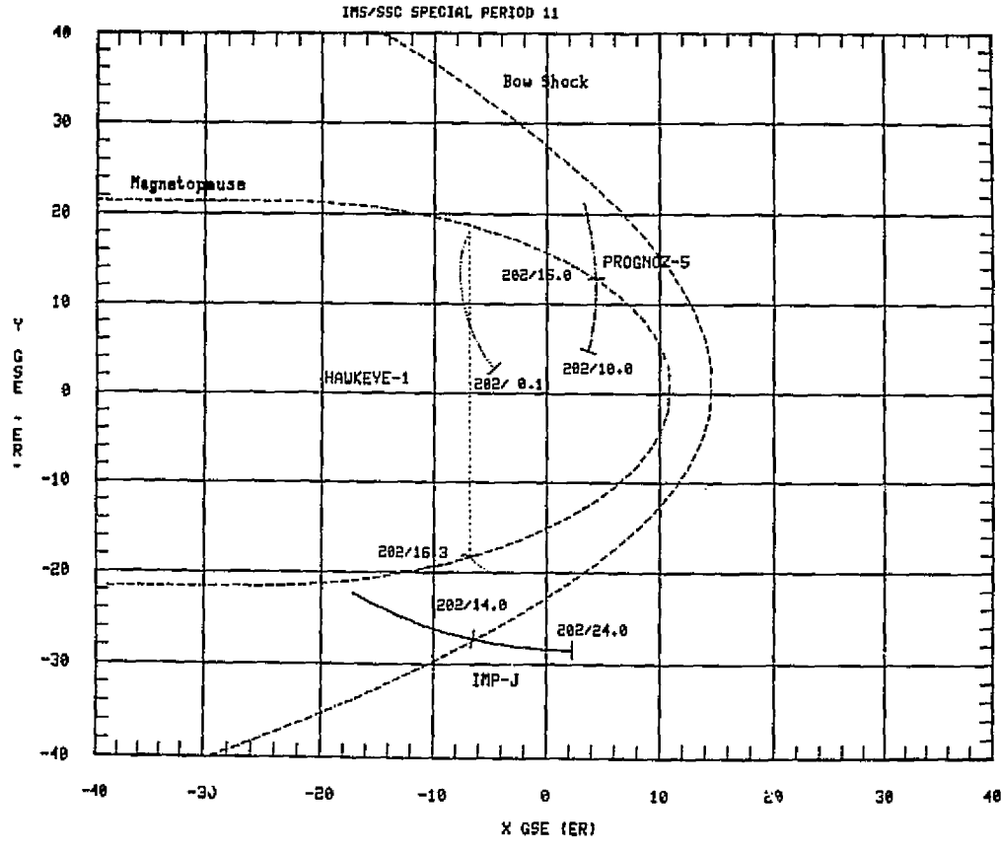
SAT ID: IMP-H SOLR-11B



NEUTRAL SHEET PLOT
SAT ID: IMP-H SOLR-11B
GSM CARTESIAN COORDINATES

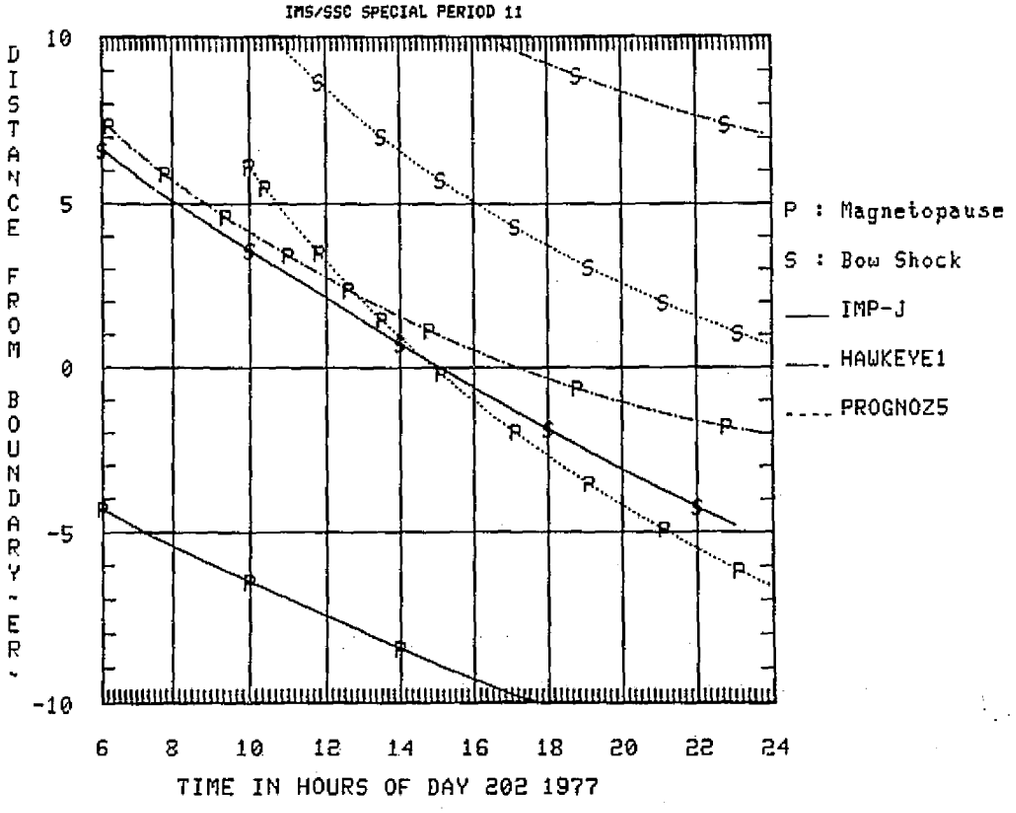


GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

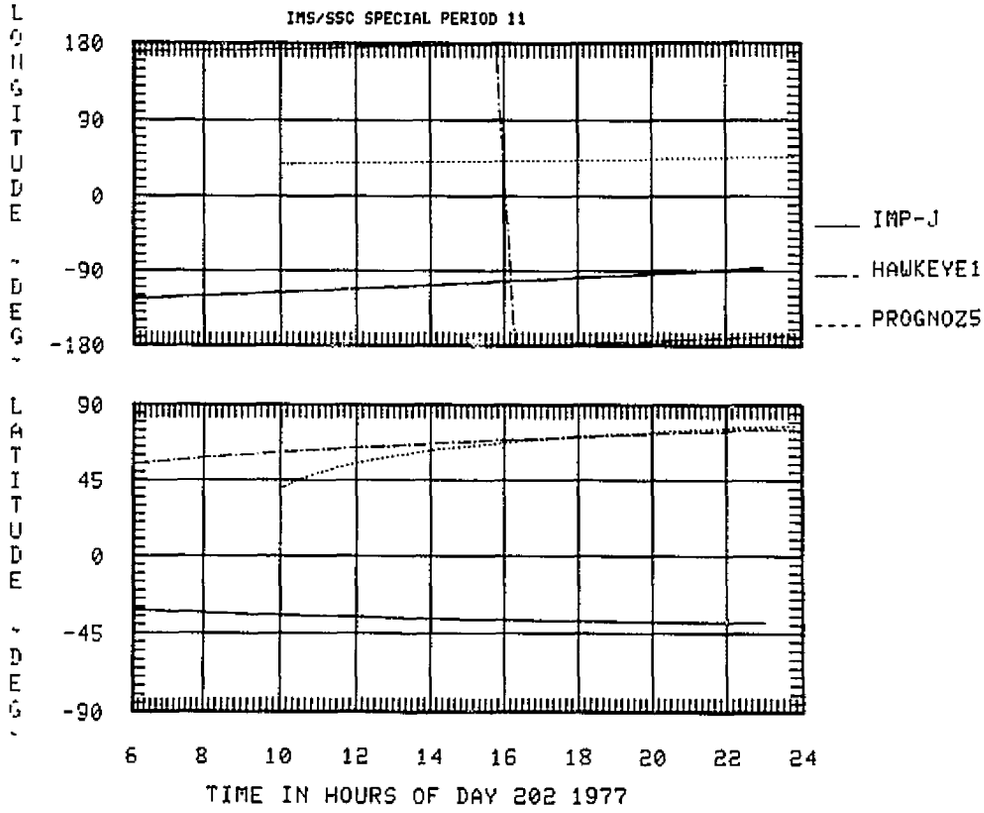


BOUNDARY PLOT

SAT ID: IMP-J HAWKEYE1 PROGNOZ5

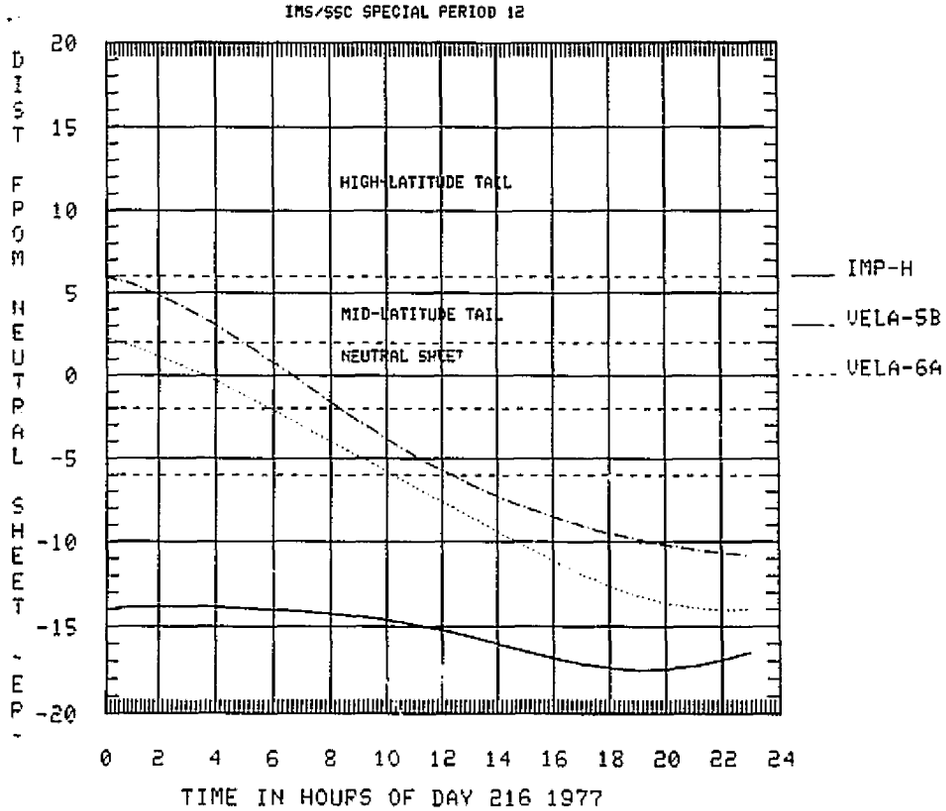


BOUNDARY PLOT
SAT ID: IMP-J HAWKEYE1 PROGNOZ5
ECLIPTIC POLAR COORDINATES



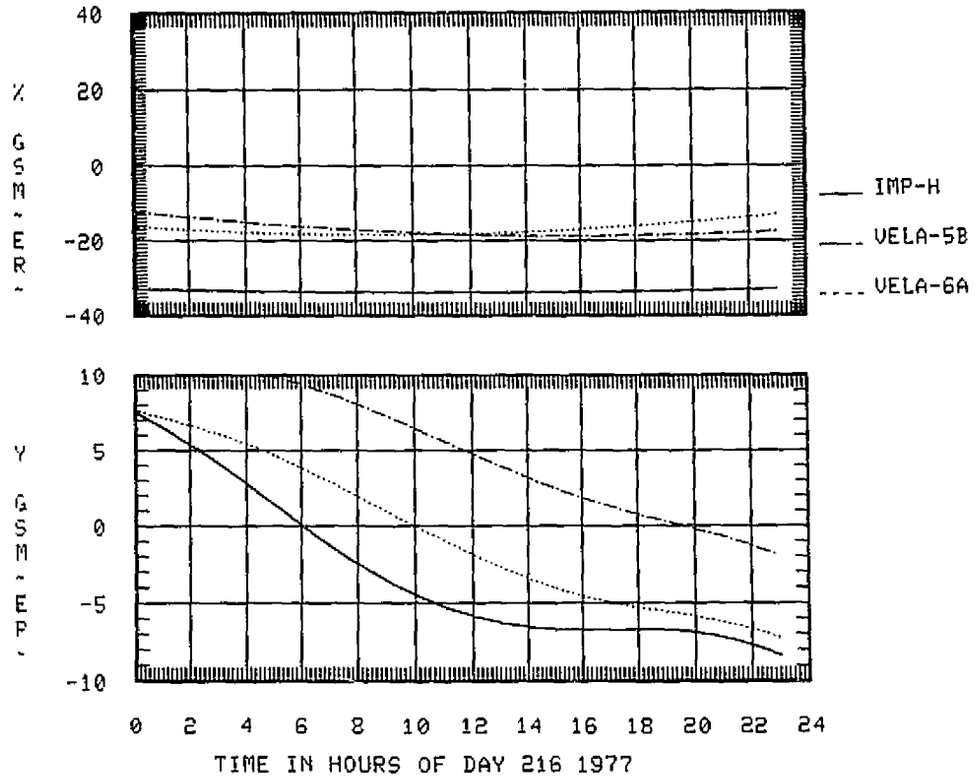
NEUTRAL SHEET PLOT

SAT ID: IMP-H VELA-5B VELA-6A



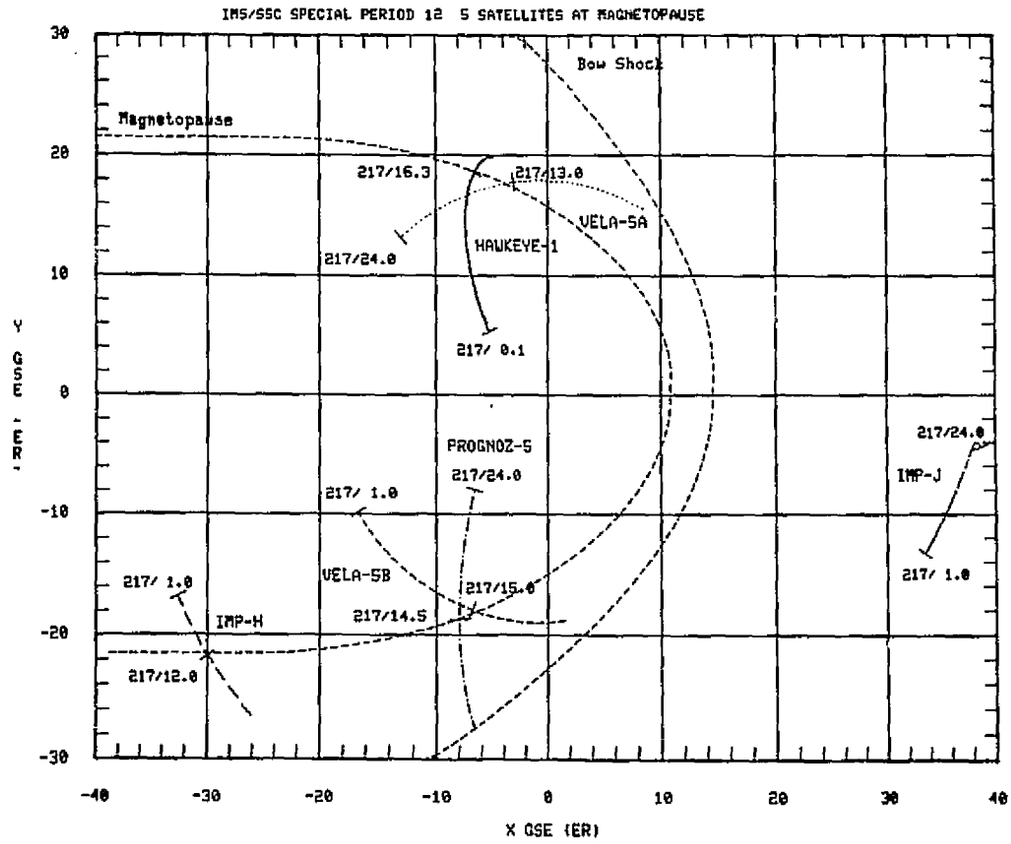
NEUTRAL SHEET PLOT
SAT ID: IMP-H VELA-5B VELA-6A
GSM CARTESIAN COORDINATES

IMS/SSC SPECIAL PERIOD 12



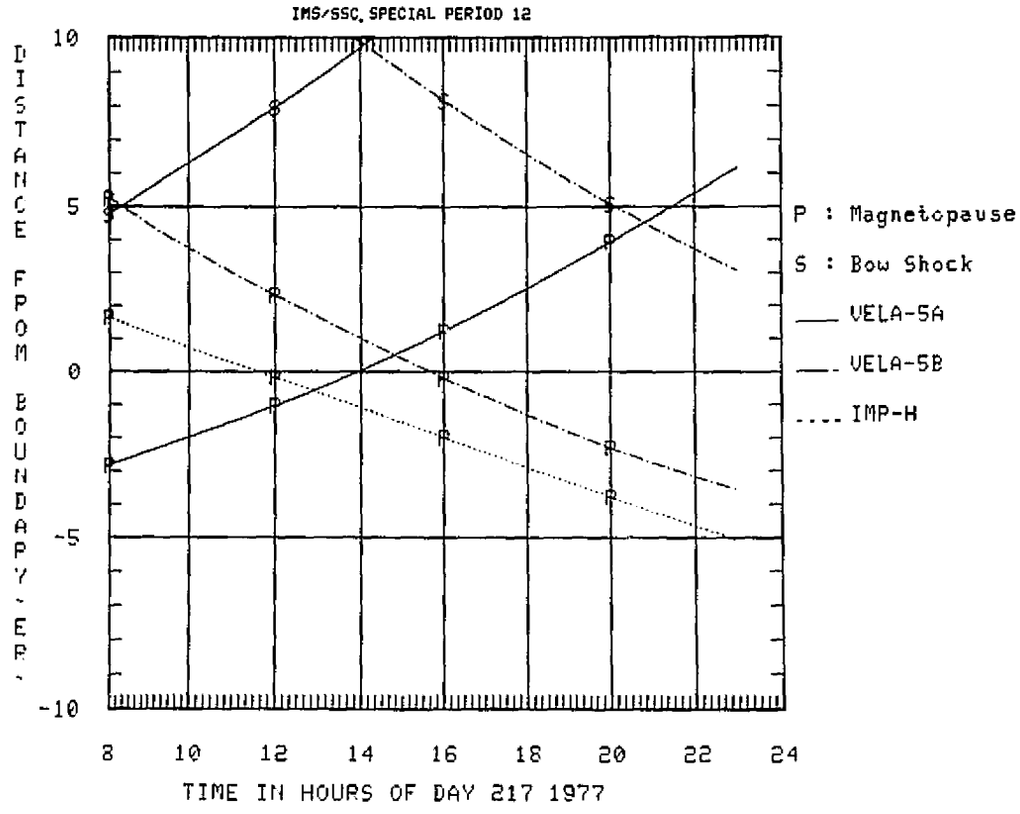
GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

IMS/SSC SPECIAL PERIOD 12 5 SATELLITES AT MAGNETOPAUSE

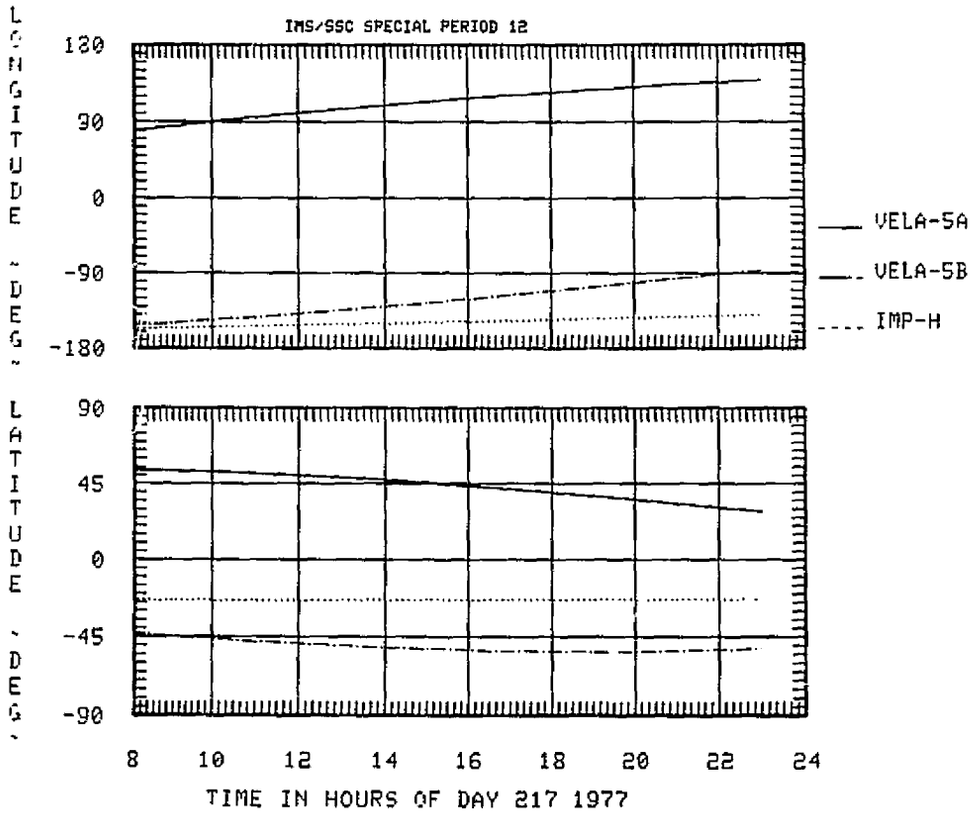


BOUNDARY PLOT

SAT ID: VELA-5A VELA-5B IMP-H

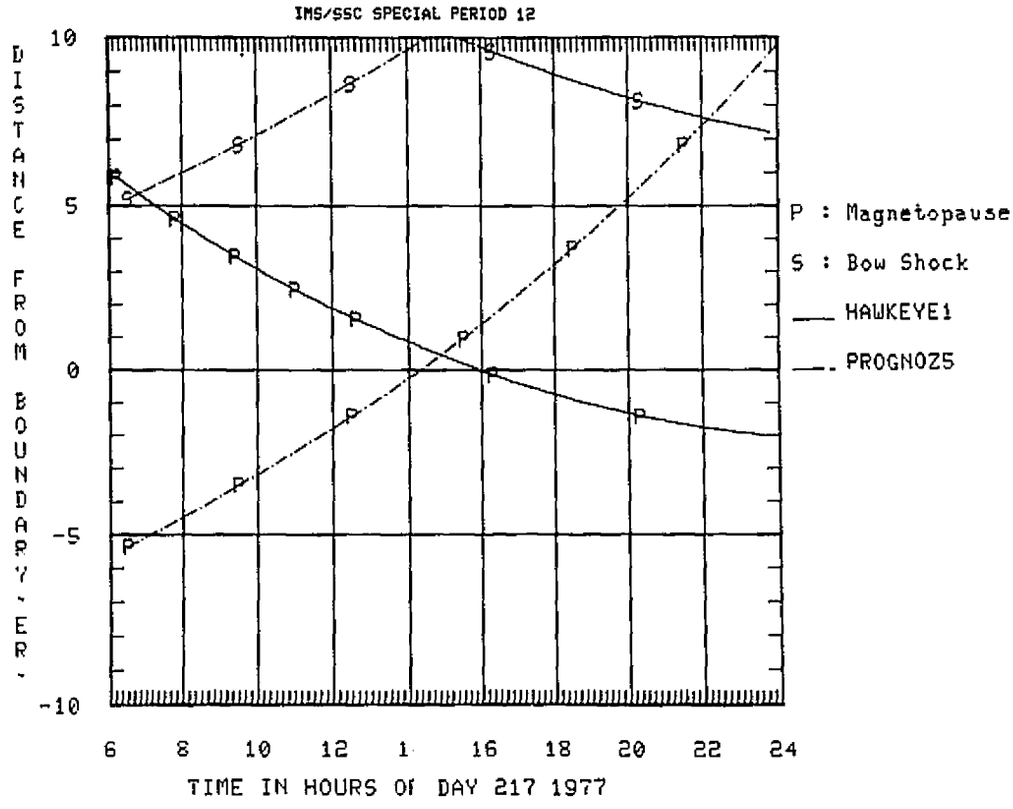


BOUNDARY PLOT
SAT ID: VELA-5A VELA-5B IMP-H
ECLIPTIC POLAR COORDINATES

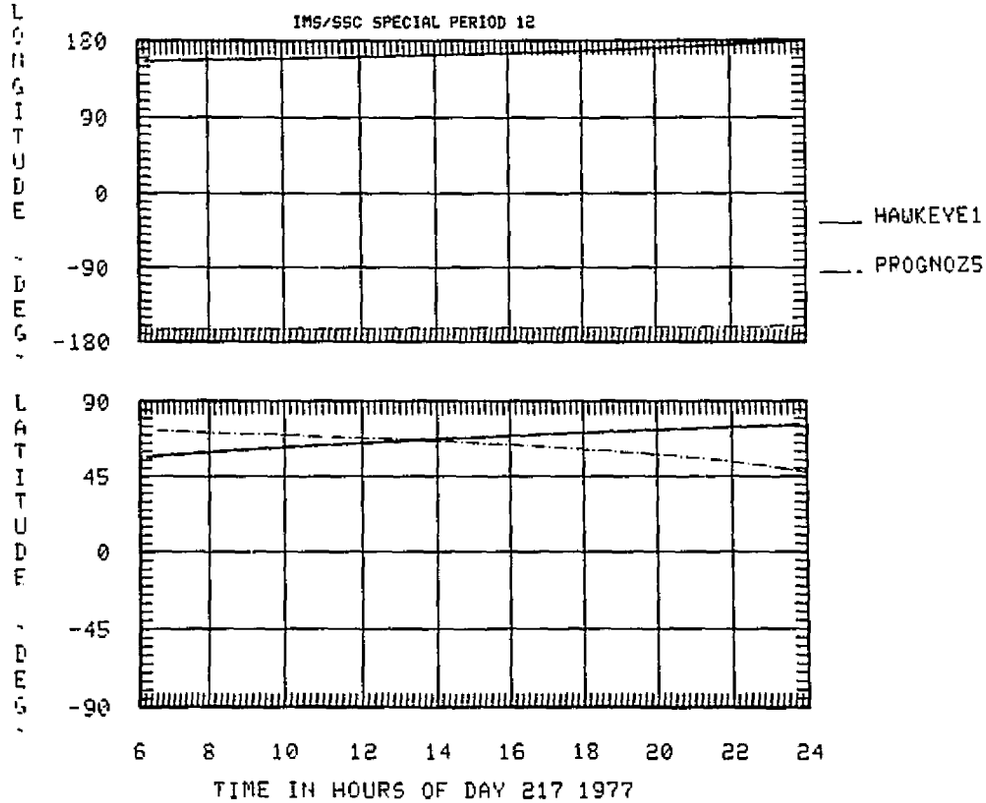


BOUNDARY PLOT

SAT ID: HAWKEYE1 PROGNOZ5



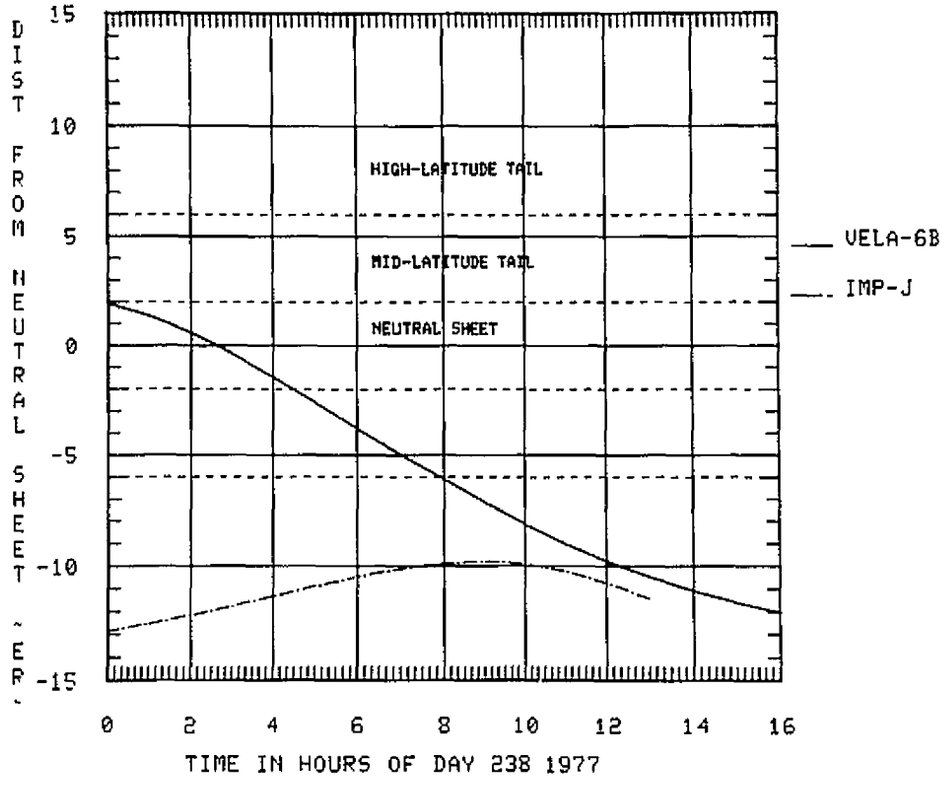
BOUNDARY PLOT
SAT ID: HAWKEYE1 PROGNOZ5
ECLIPTIC POLAR COORDINATES



NEUTRAL SHEET PLOT

SAT ID: VELA-6B IMP-J

IMS/SSC SPECIAL PERIOD 13

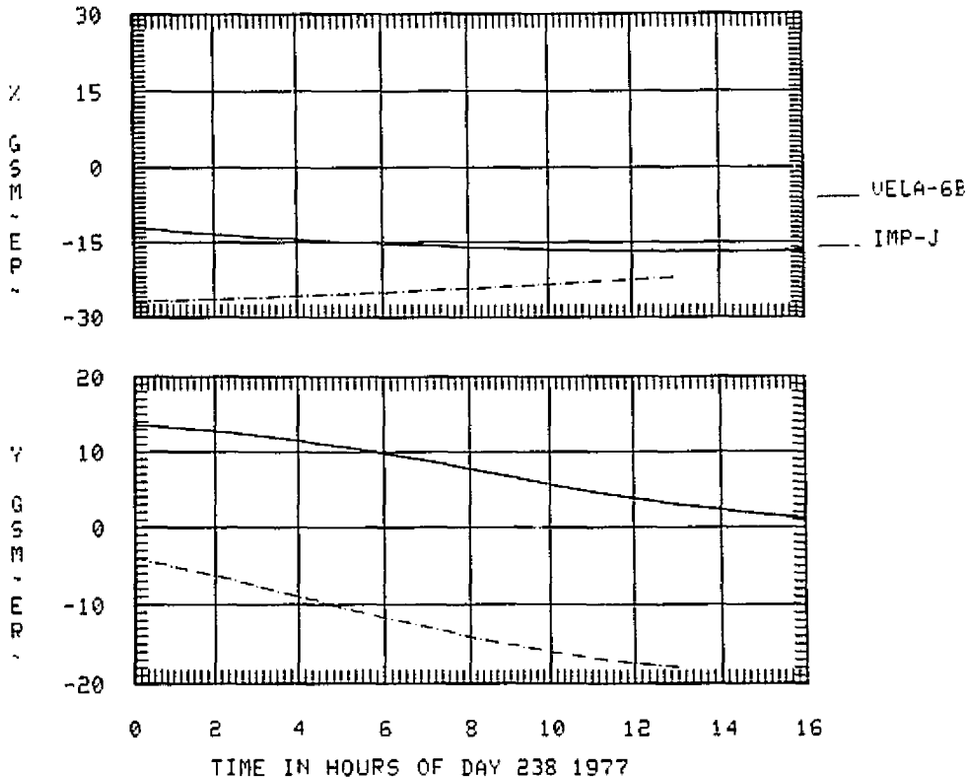


NEUTRAL SHEET PLOT

SAT ID: VELA-6B IMP-J

GSM CARTESIAN COORDINATES

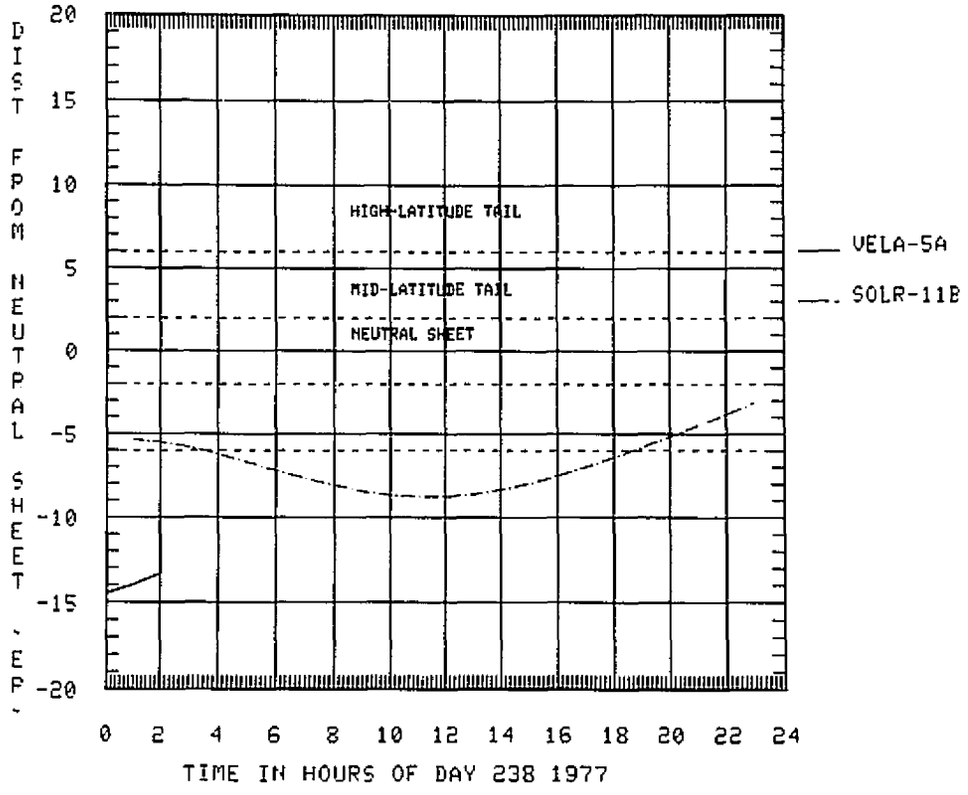
IMS/SSC SPECIAL PERIOD 13



NEUTRAL SHEET PLOT

SAT ID: VELA-5A SOLR-11B

IMS/SSC SPECIAL PERIOD 13

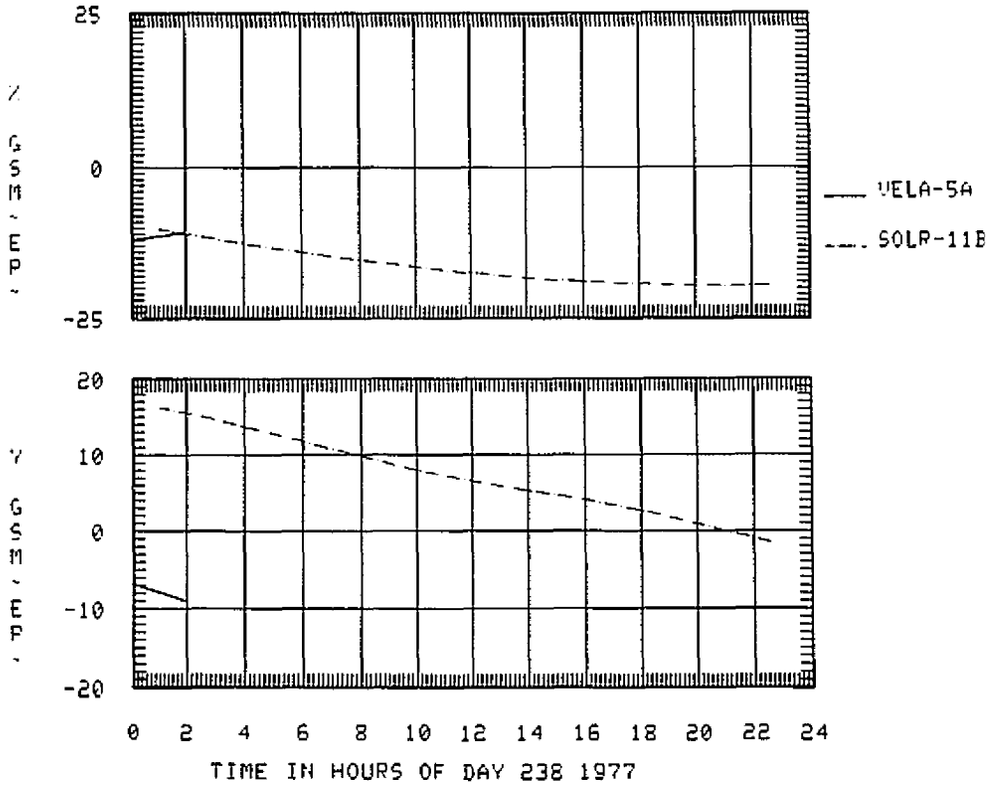


NEUTRAL SHEET PLOT

SAT ID: VELA-5A SOLR-11B

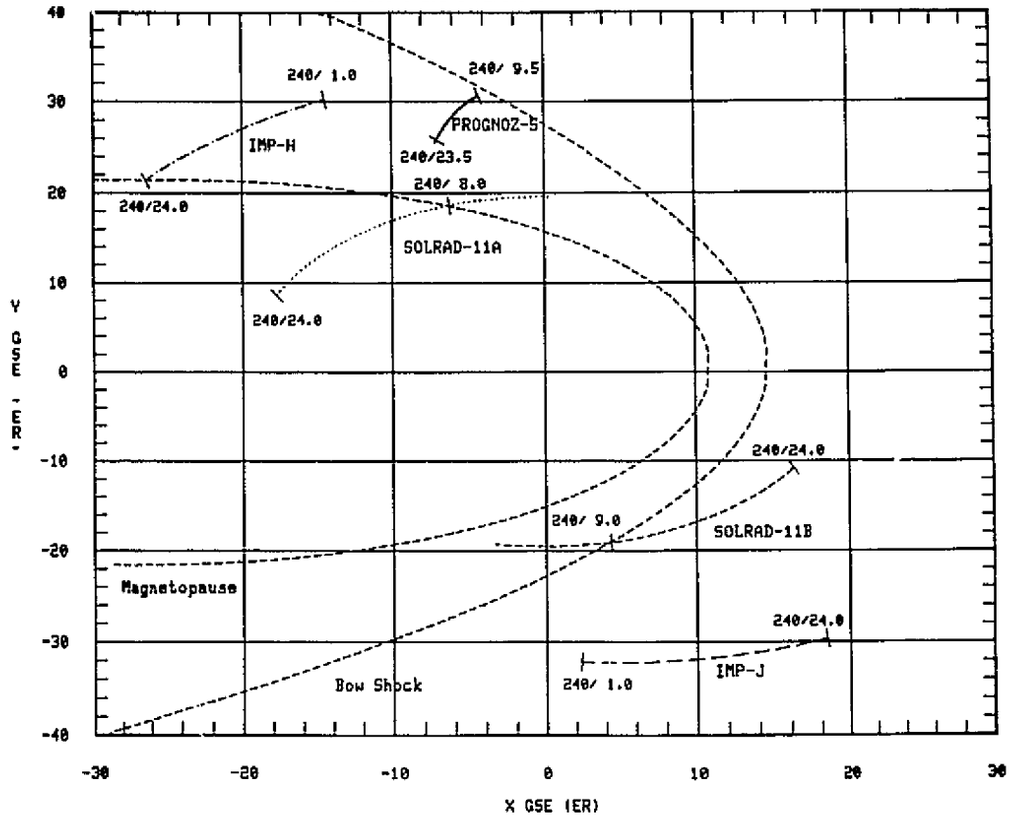
GSM CARTESIAN COORDINATES

IMS/SSC SPECIAL PERIOD 13



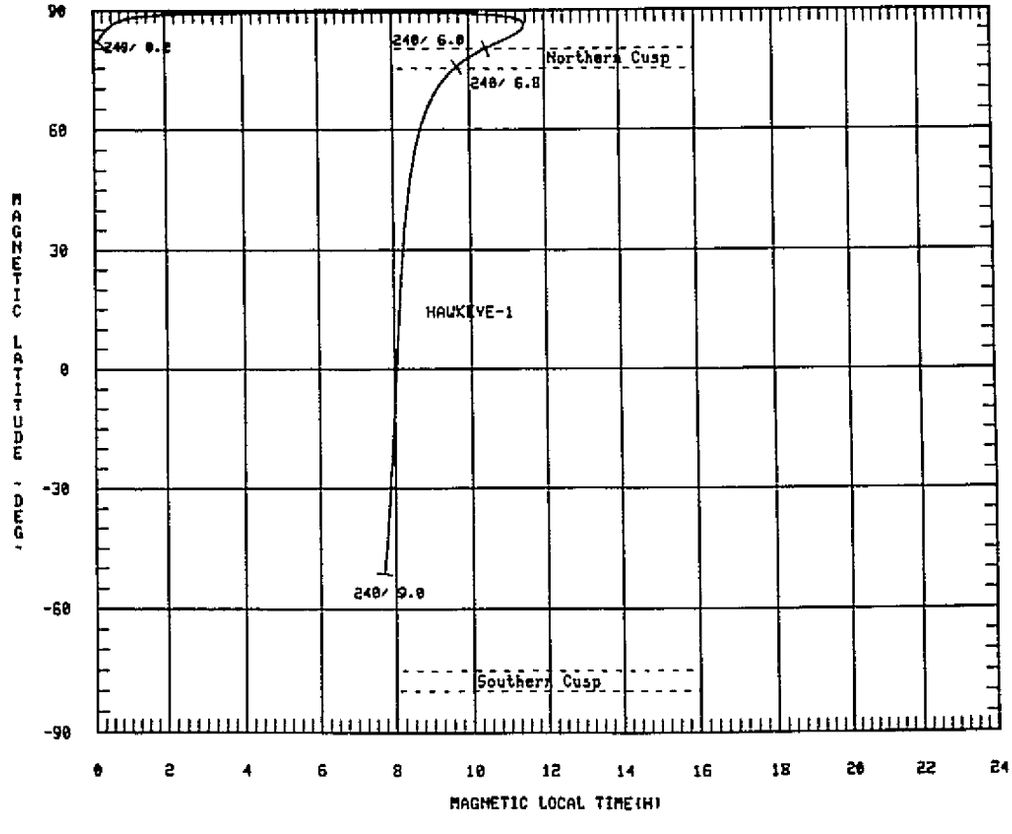
GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

IMS/SSC SPECIAL PERIOD 14



MAGNETIC LATITUDE-MAGNETIC LOCAL TIME PROJECTION

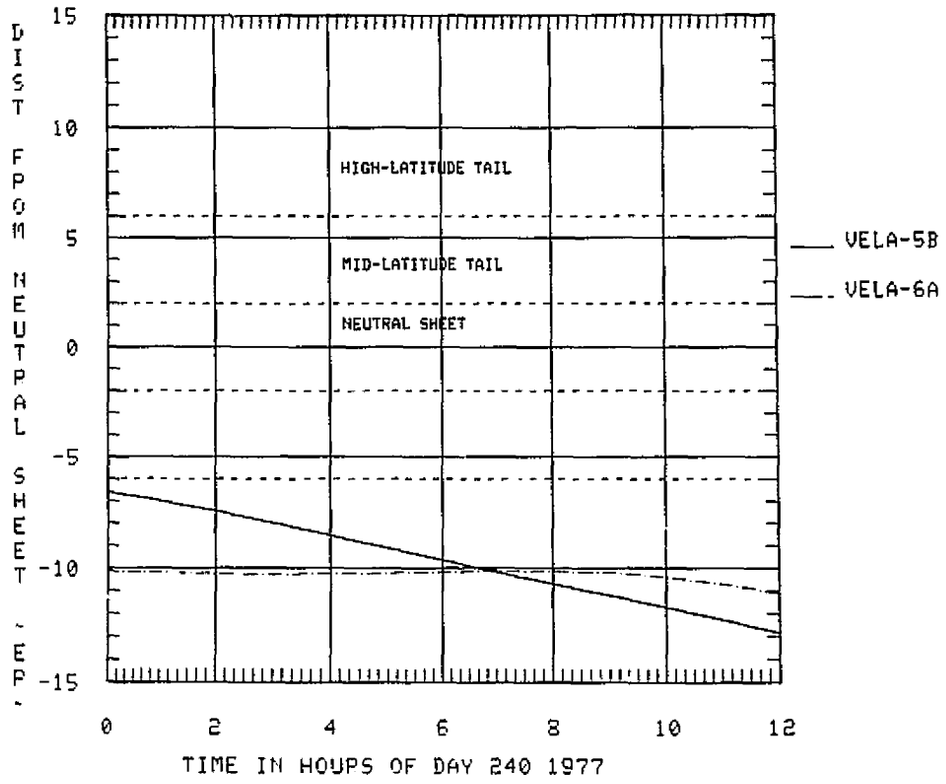
IMS/SSC SPECIAL PERIOD 14



NEUTRAL SHEET PLOT

SAT ID: VELA-5B VELA-6A

IMS/SSC SPECIAL PERIOD 14

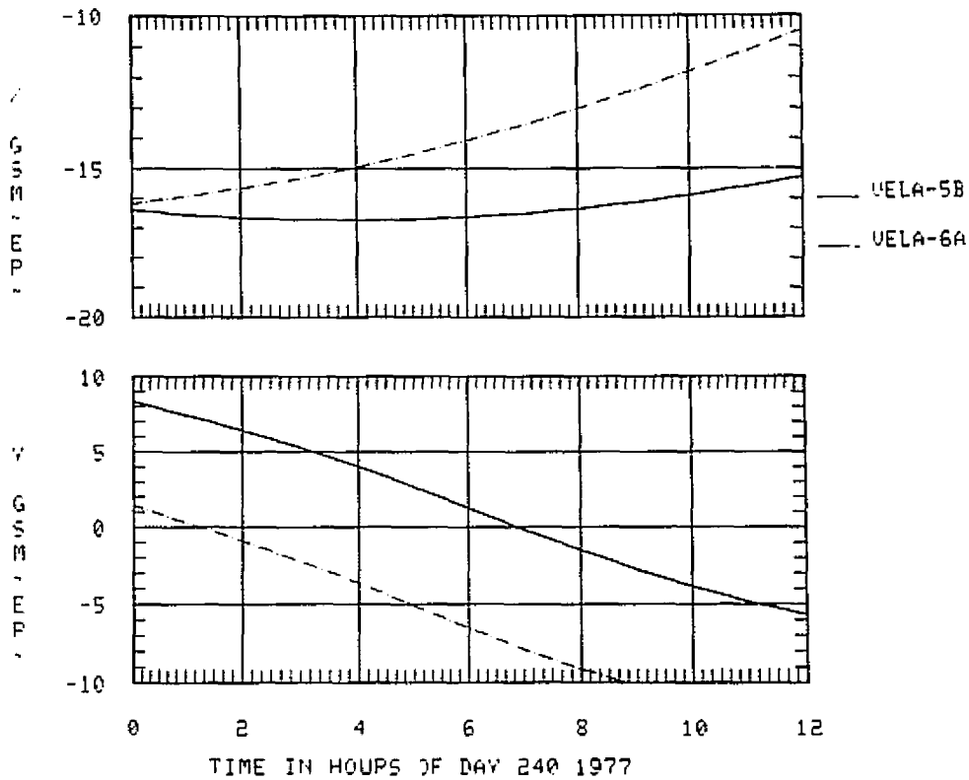


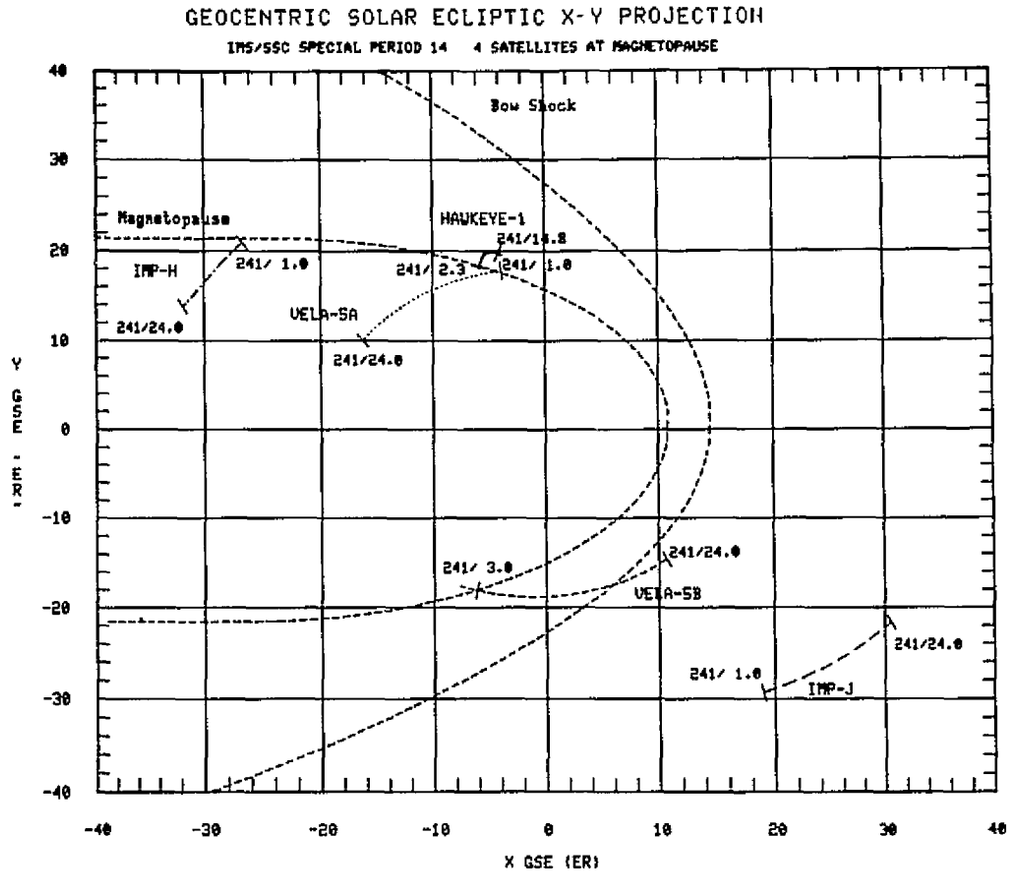
NEUTRAL SHEET PLOT

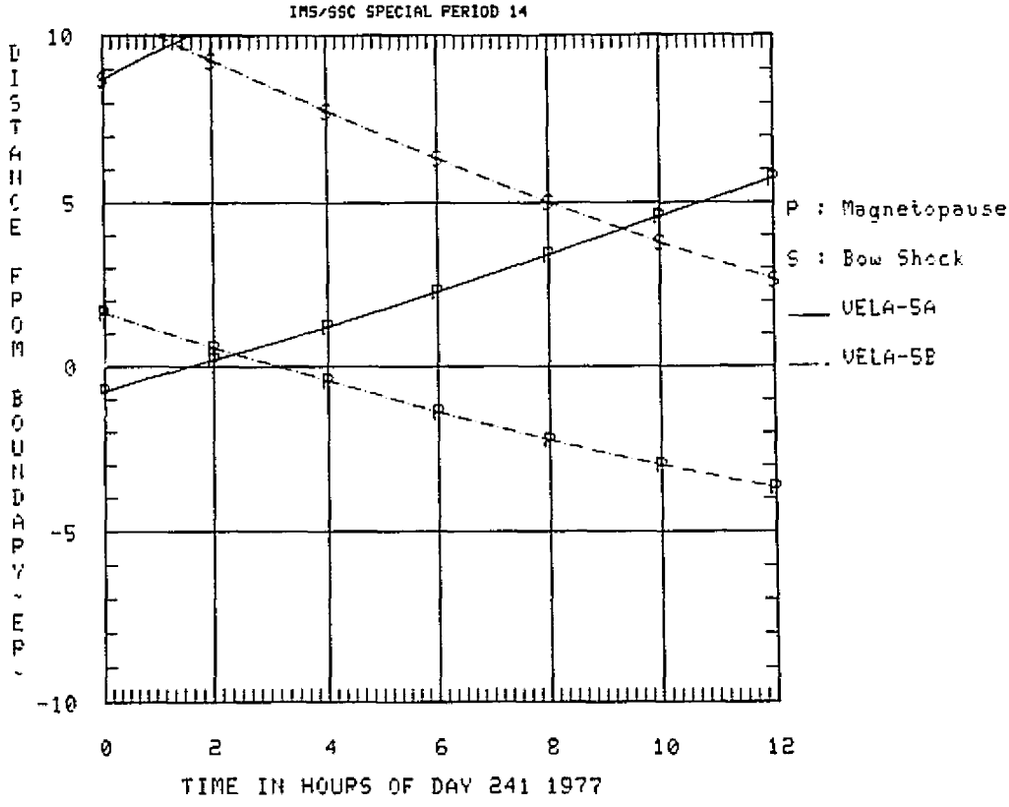
SAT ID: VELA-5B VELA-6A

GSM CARTESIAN COORDINATES

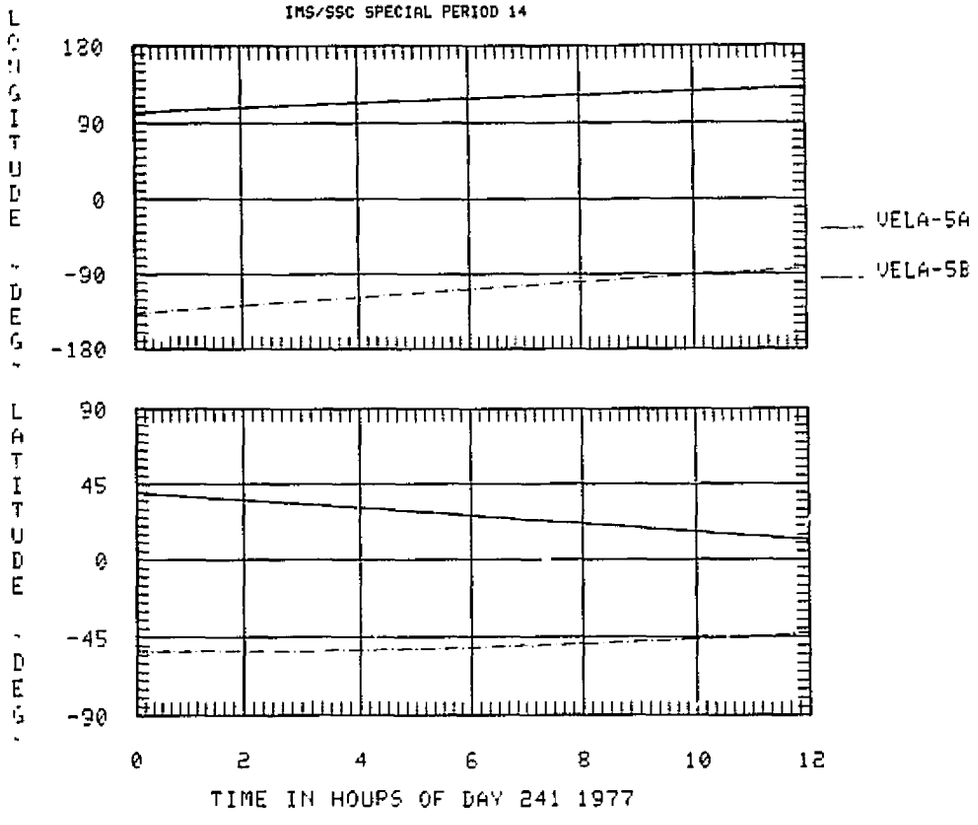
IMS/SSC SPECIAL PERIOD 14




GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION
IMS/SSC SPECIAL PERIOD 14 4 SATELLITES AT MAGNETOPAUSE
Bow Shock
Magnetopause
HAWKEYE-1
241/14.8
IMP-H
241/ 1.0
241/ 2.3
241/ 1.0
241/24.0
VELA-5A
241/24.0
241/ 3.0
241/24.0
VELA-5B
241/24.0
241/ 1.0
IMP-J
Y GSE (ER)
X GSE (ER)
40
30
20
10
0
-10
-20
-30
-40

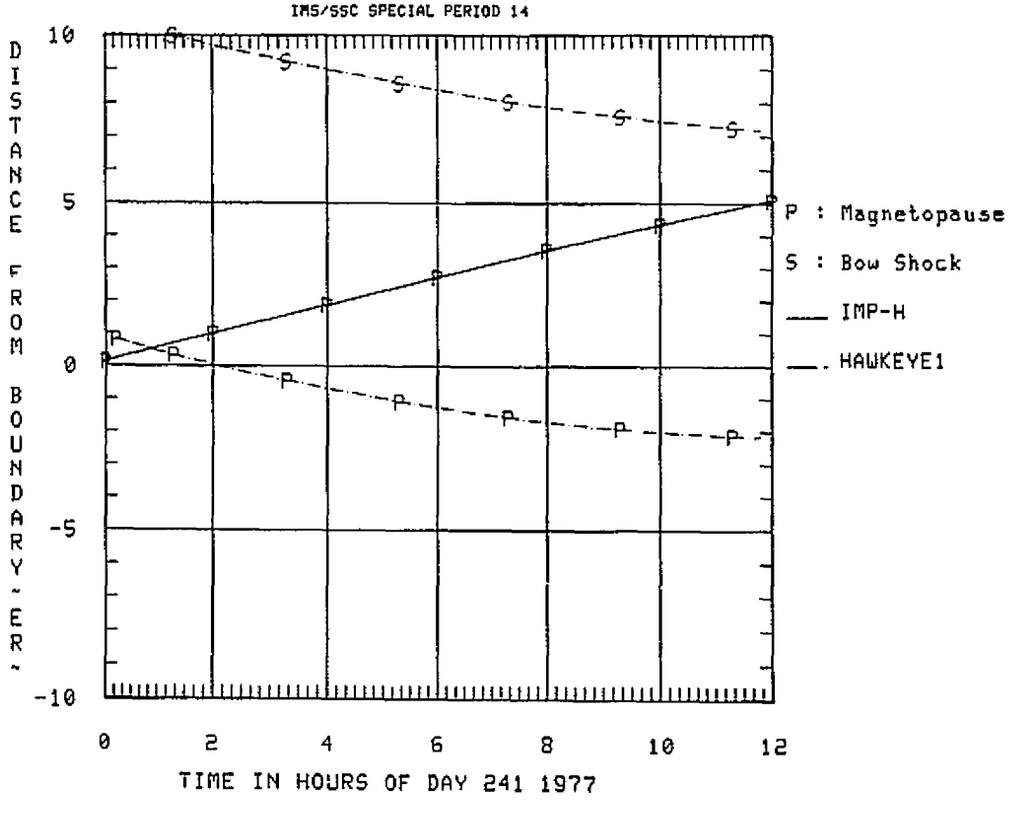

BOUNDARY PLOT
SAT ID: VELA-5A VELA-5B
IMS/SSC SPECIAL PERIOD 14
DISTANCE FROM BOUNDARY, ER
TIME IN HOURS OF DAY 241 1977
P : Magnetopause
S : Bow Shock
VELA-5A
VELA-5B
10
5
0
-5
-10
0
2
4
6
8
10
12

BOUNDARY PLOT
SAT ID: VELA-5A VELA-5B
ECLIPTIC POLAR COORDINATES

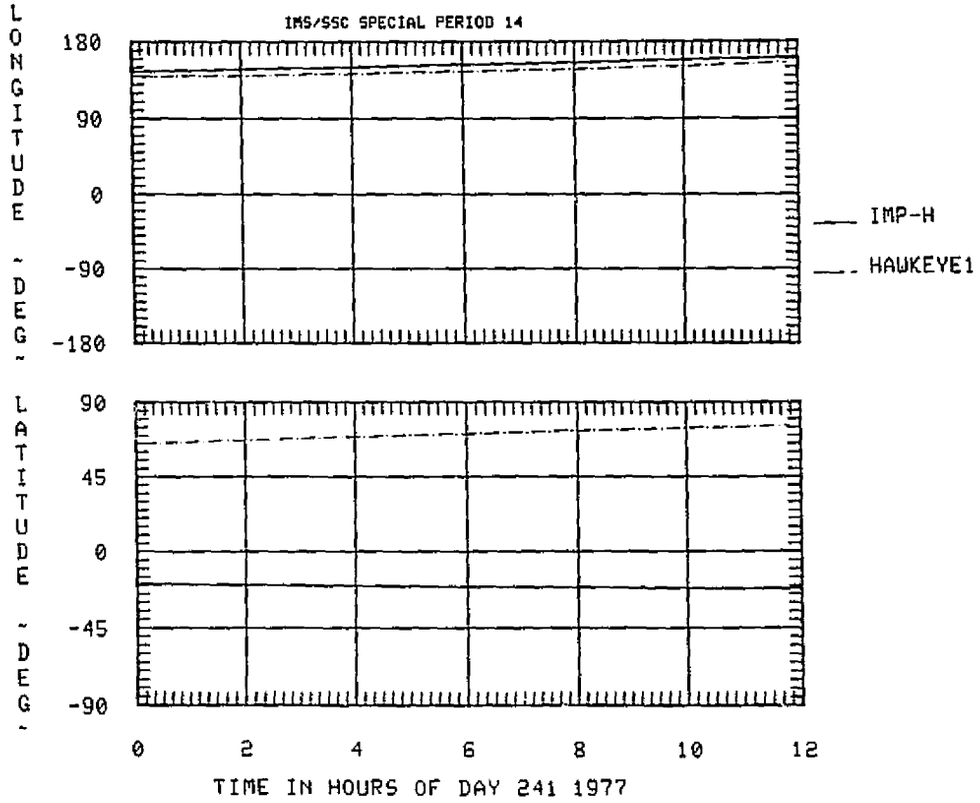


BOUNDARY PLOT

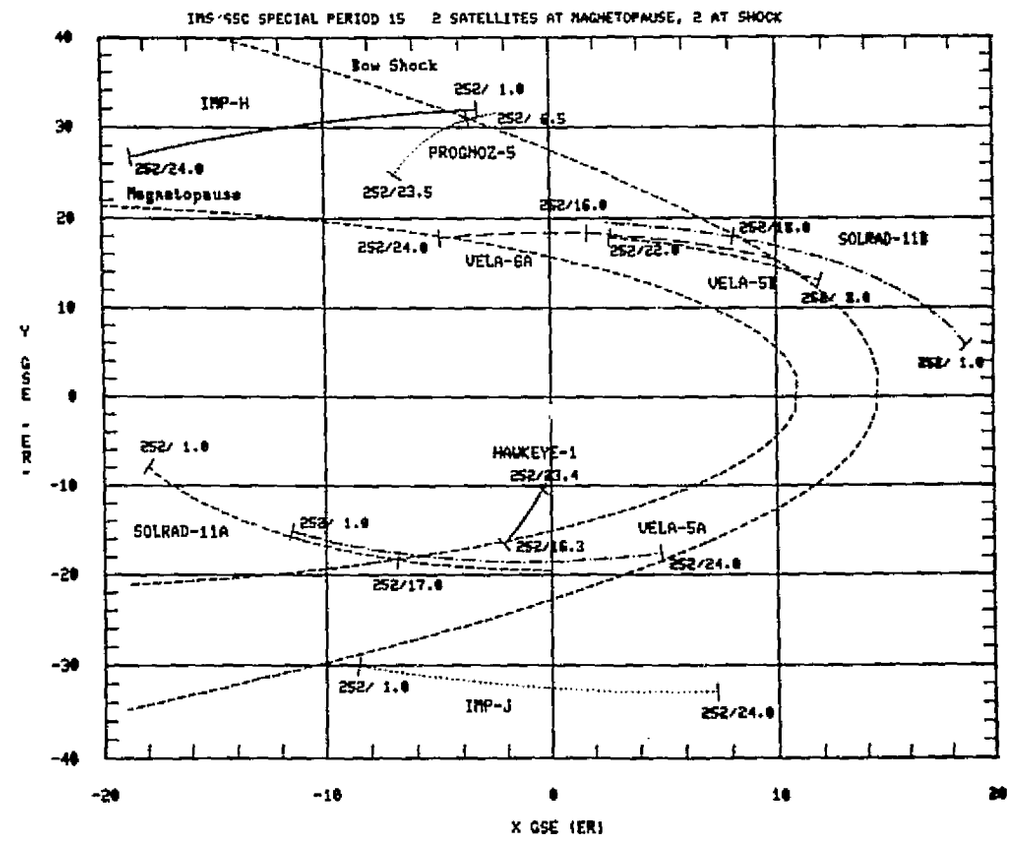
SAT ID: IMP-H HAWKEYE1



BOUNDARY PLOT
SAT ID: IMP-H HAWKEYE1
ECLIPTIC POLAR COORDINATES

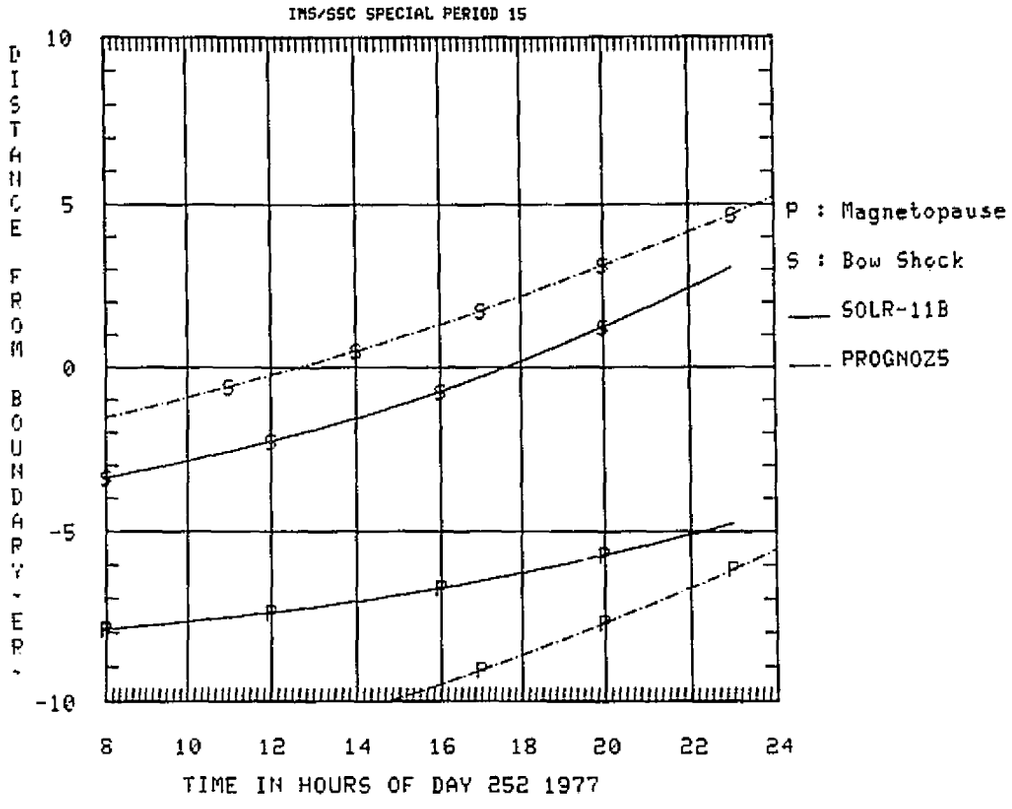


GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

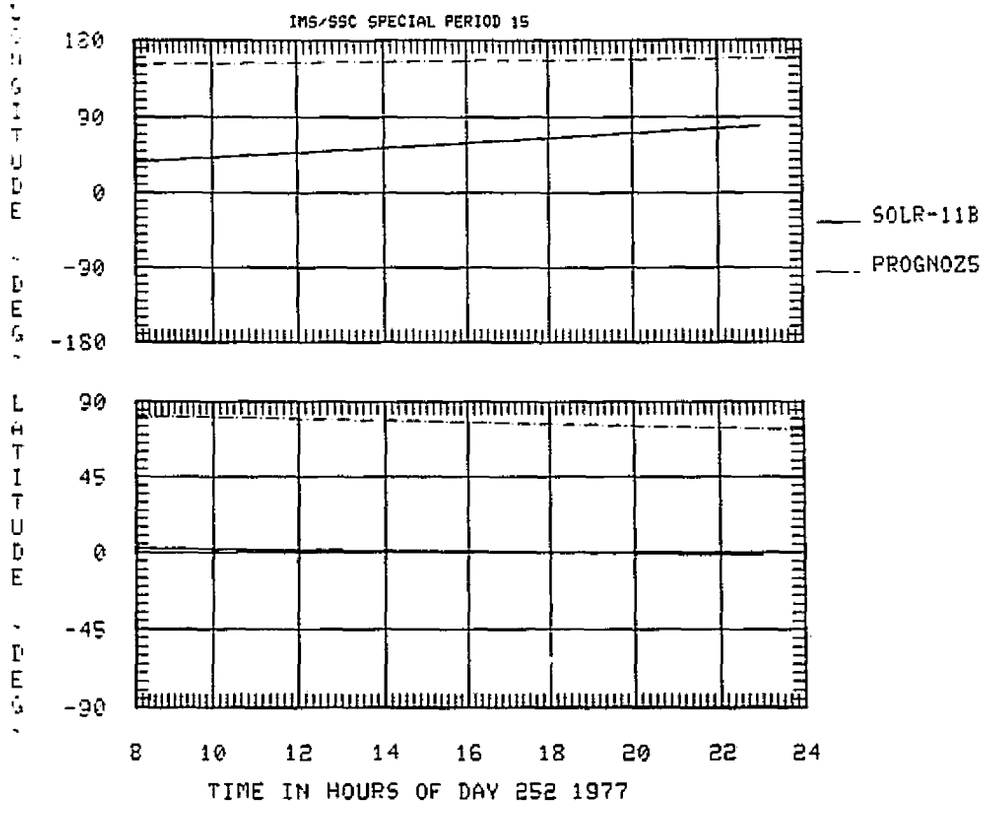


BOUNDARY PLOT

SAT ID: SOLR-11B PROGNOZ5

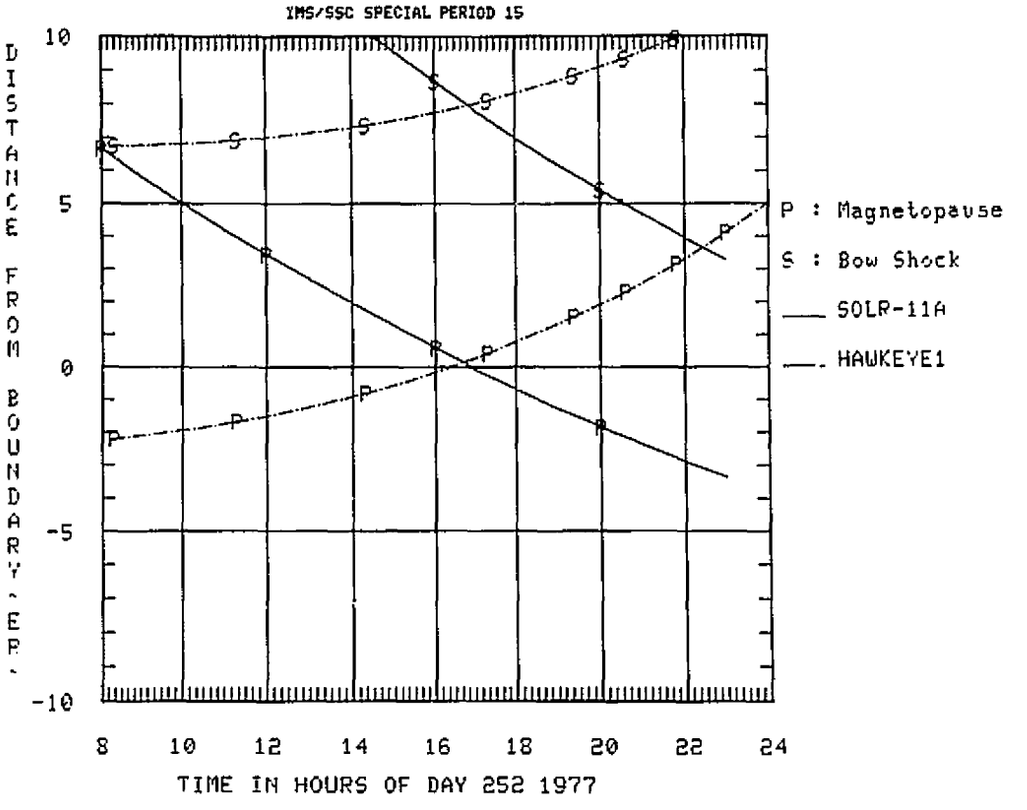


BOUNDARY PLOT
SAT ID: SOLP-11B PROGNOZ5
ECLIPTIC POLAR COORDINATES

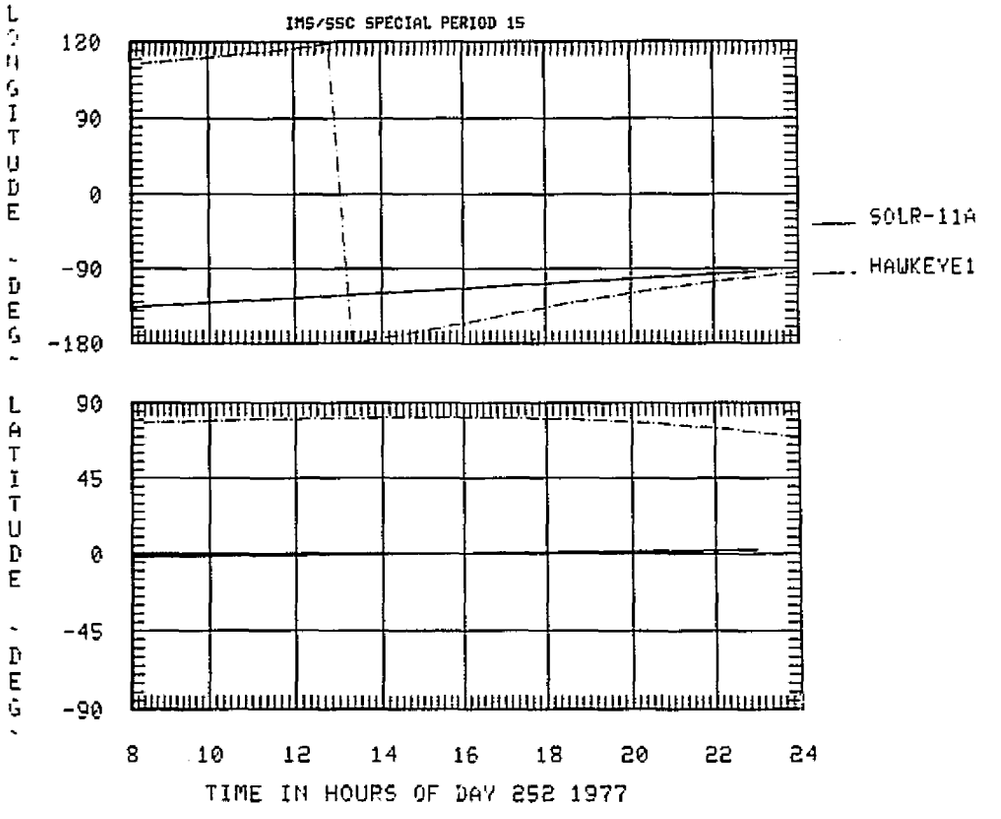


BOUNDARY PLOT

SAT ID: SOLR-11A HAWKEYE1

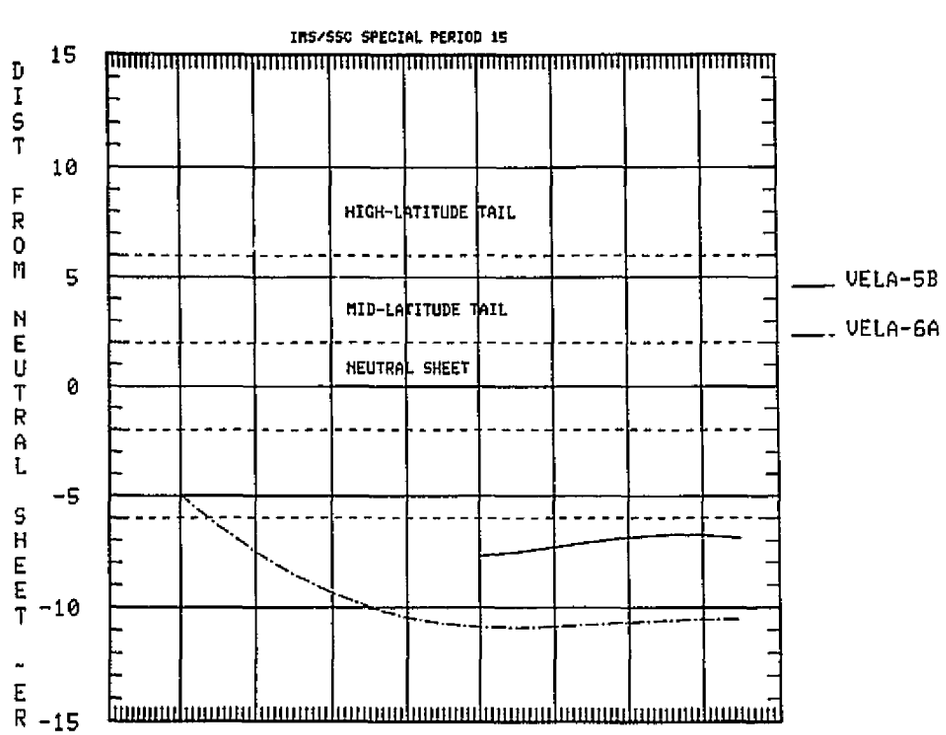


BOUNDARY PLOT
SAT ID: SOLR-11A HAWKEYE1
ECLIPTIC POLAR COORDINATES

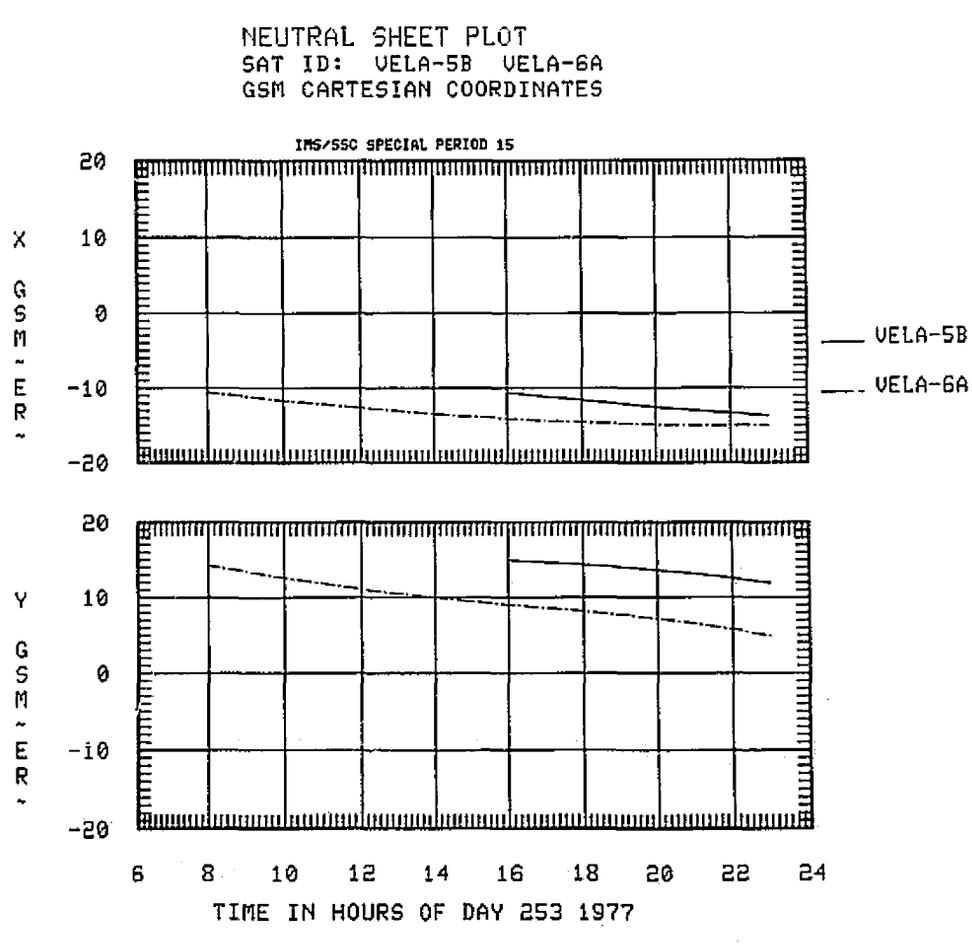


NEUTRAL SHEET PLOT

SAT ID: VELA-5B VELA-6A

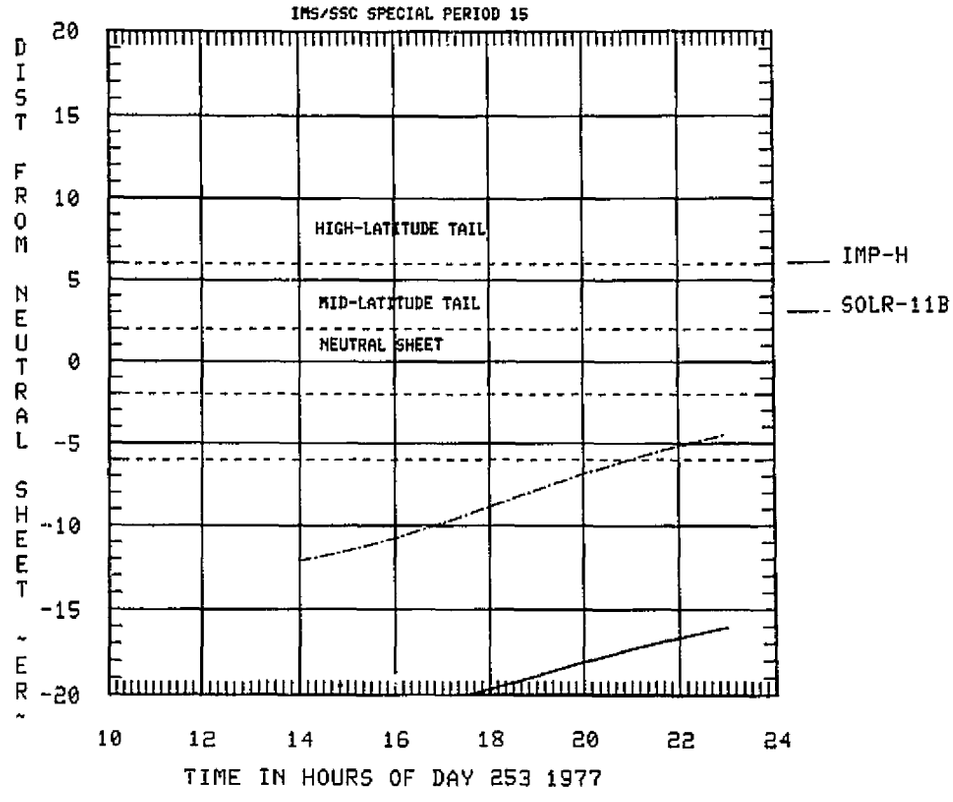


NEUTRAL SHEET PLOT
SAT ID: VELA-5B VELA-6A
GSM CARTESIAN COORDINATES

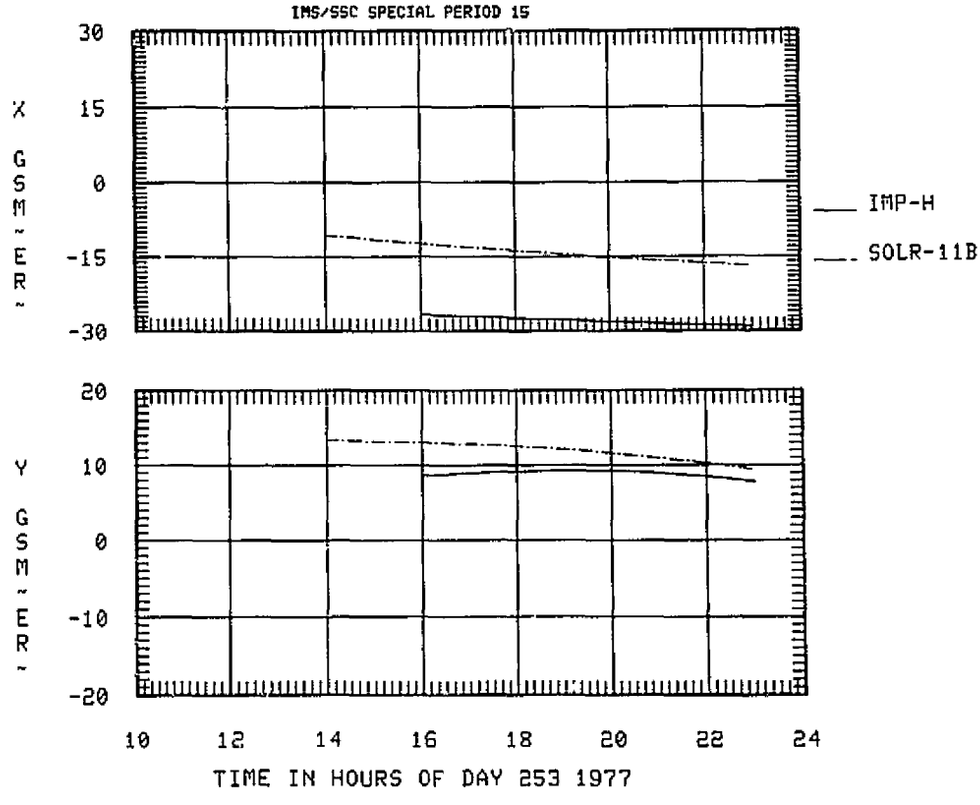


NEUTRAL SHEET PLOT

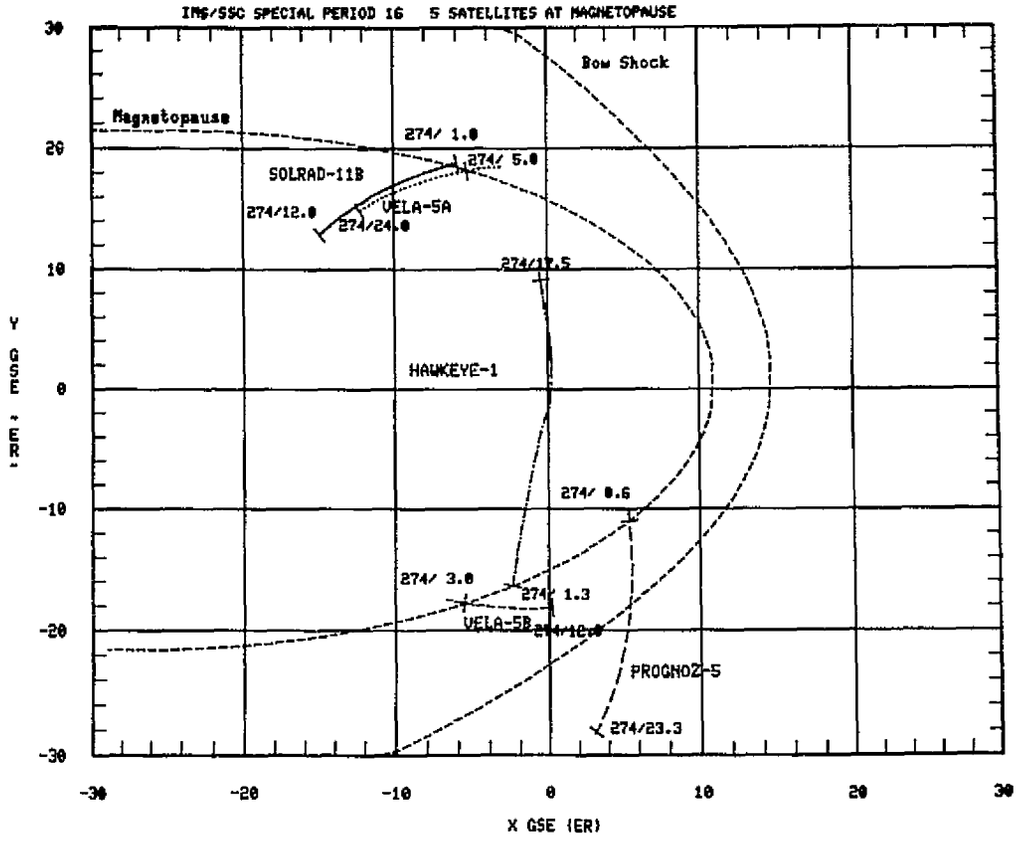
SAT ID: IMP-H SOLR-11B



NEUTRAL SHEET PLOT
SAT ID: IMP-H SOLR-11B
GSM CARTESIAN COORDINATES

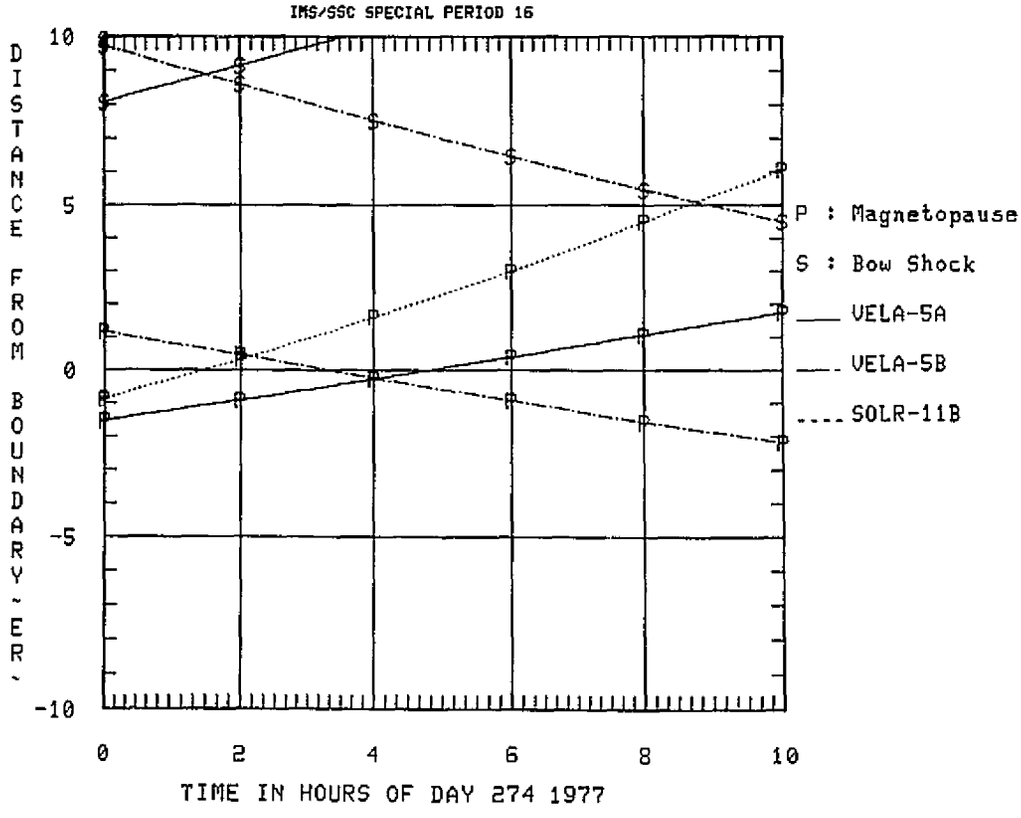


GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

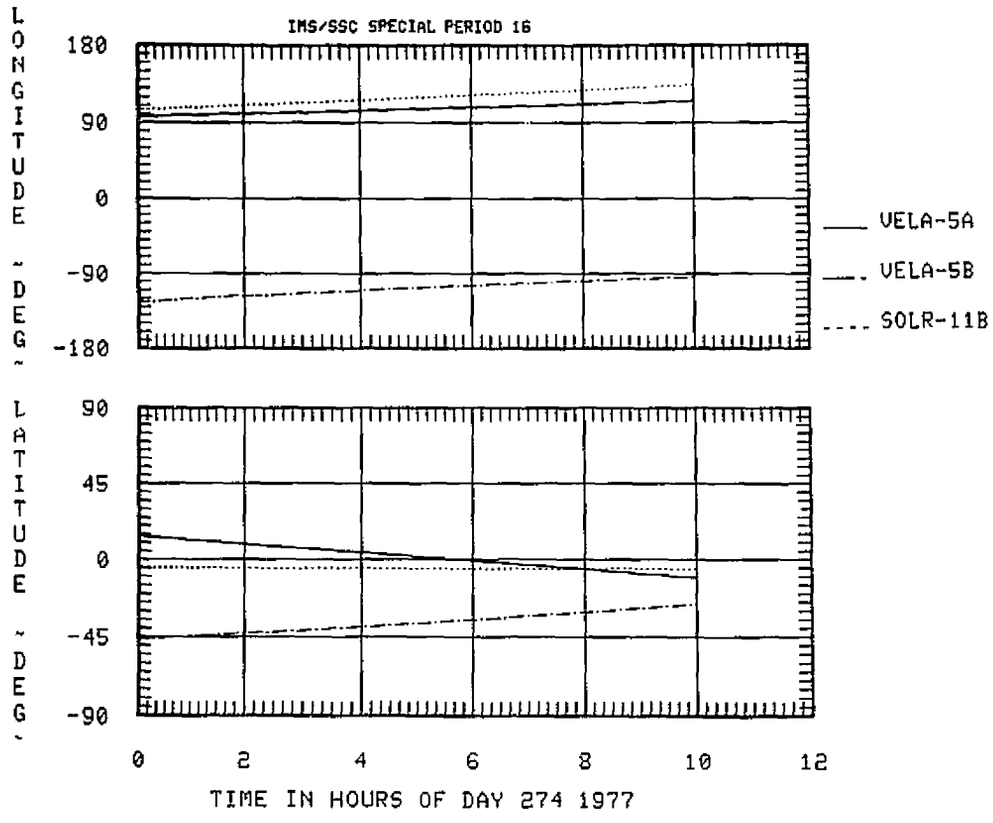


BOUNDARY PLOT

SAT ID: VELA-5A VELA-5B SOLR-11B

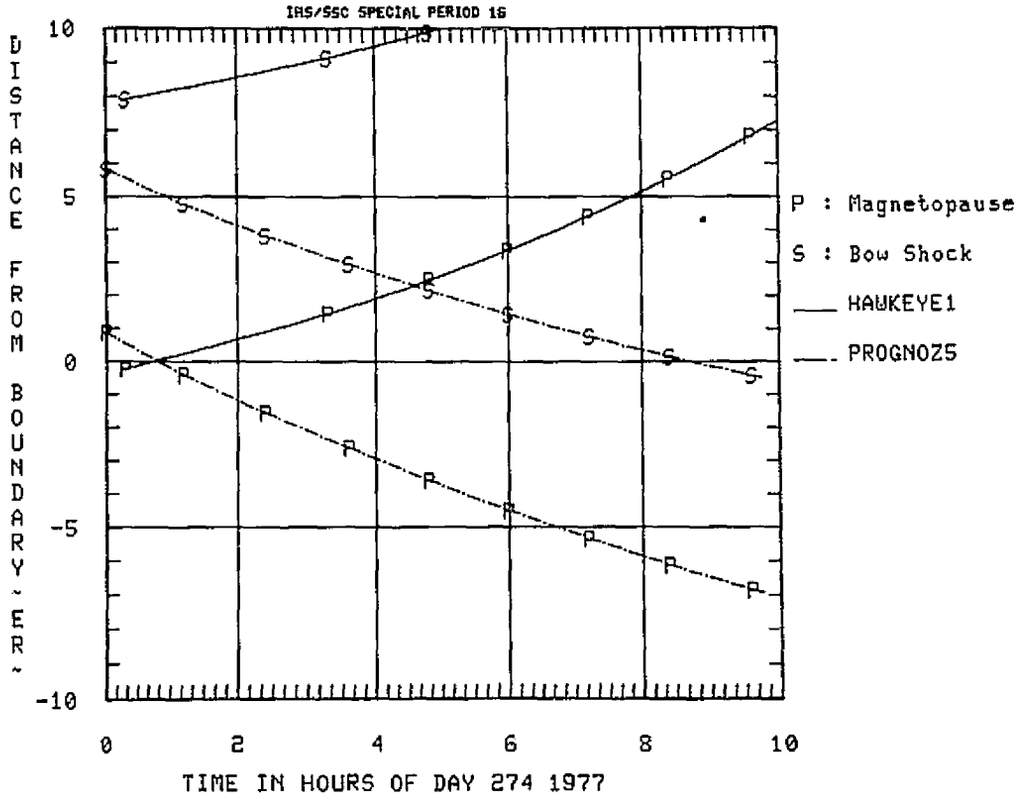


BOUNDARY PLOT
SAT ID: VELA-5A VELA-5B SOLR-11B
ECLIPTIC POLAR COORDINATES

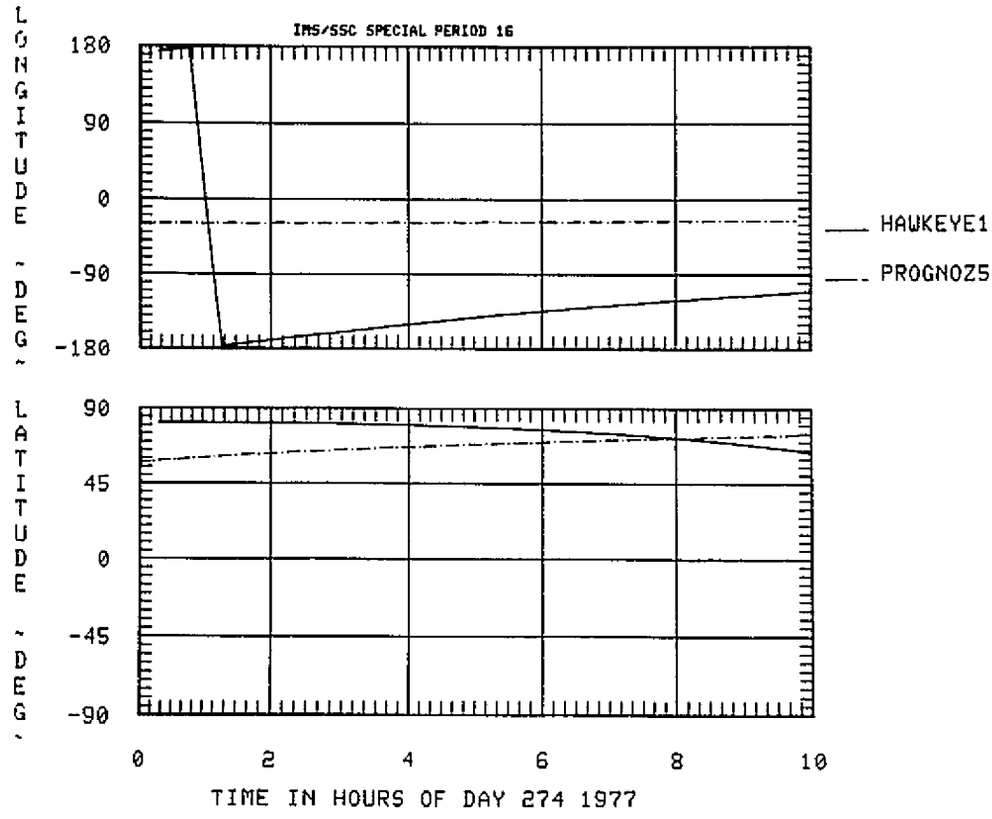


BOUNDARY PLOT

SAT ID: HAWKEYE1 PROGNOZ5

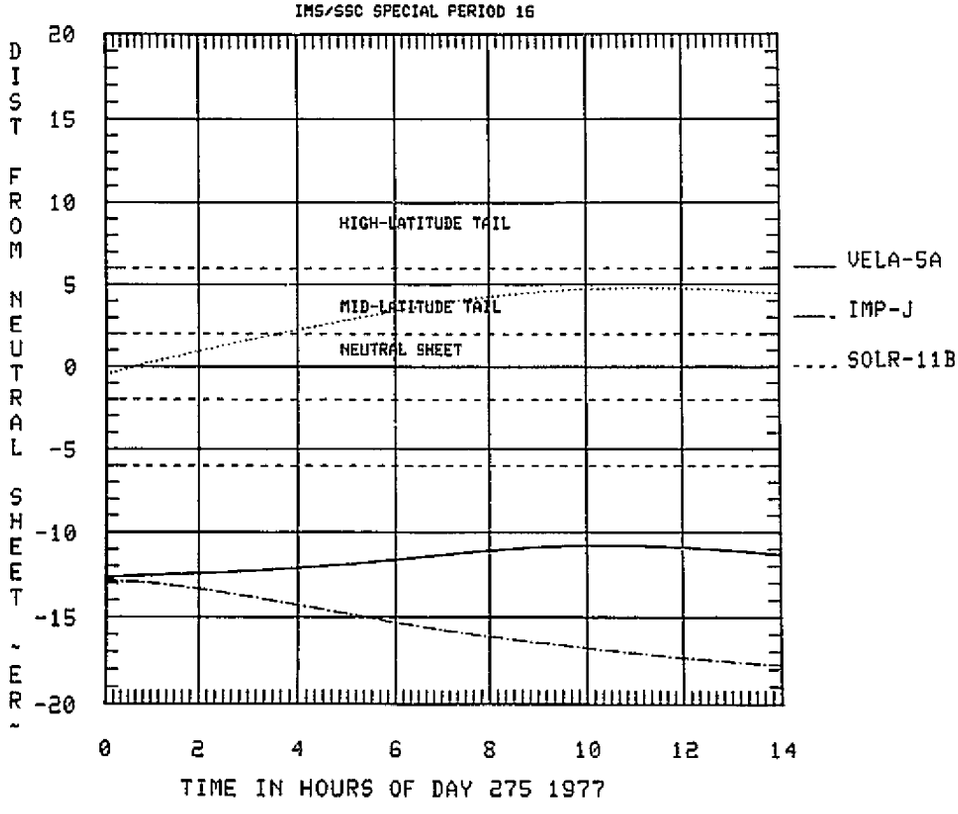


BOUNDARY PLOT
SAT ID: HAWKEYE1 PROGNOZ5
ECLIPTIC POLAR COORDINATES

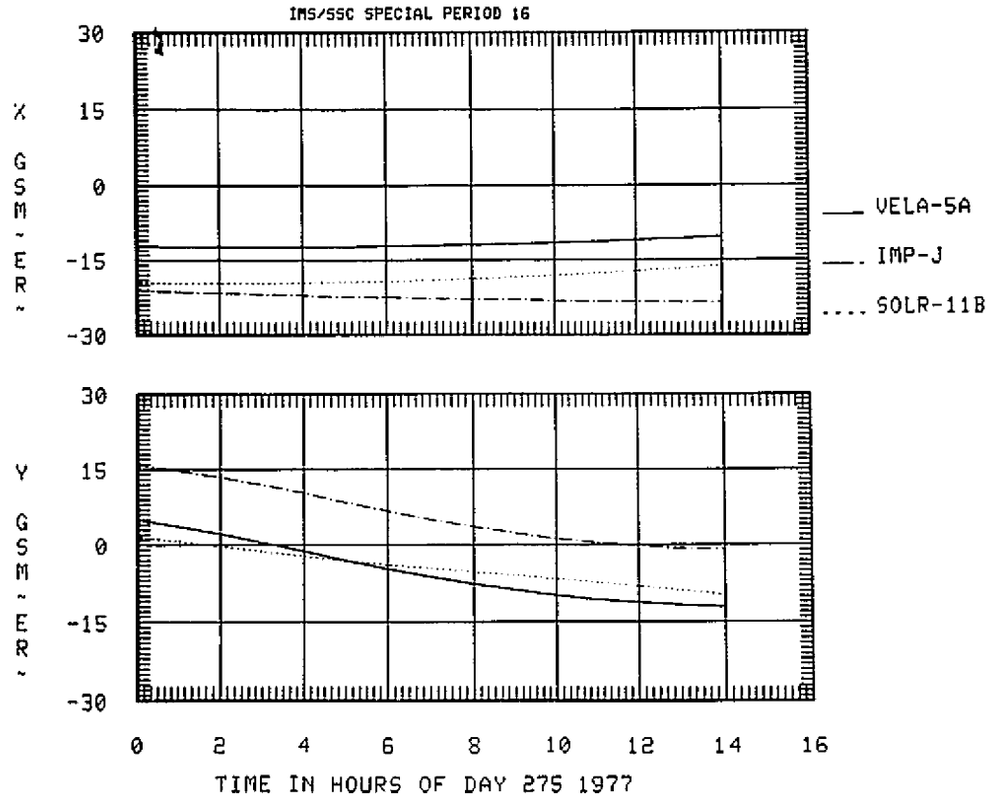


NEUTRAL SHEET PLOT

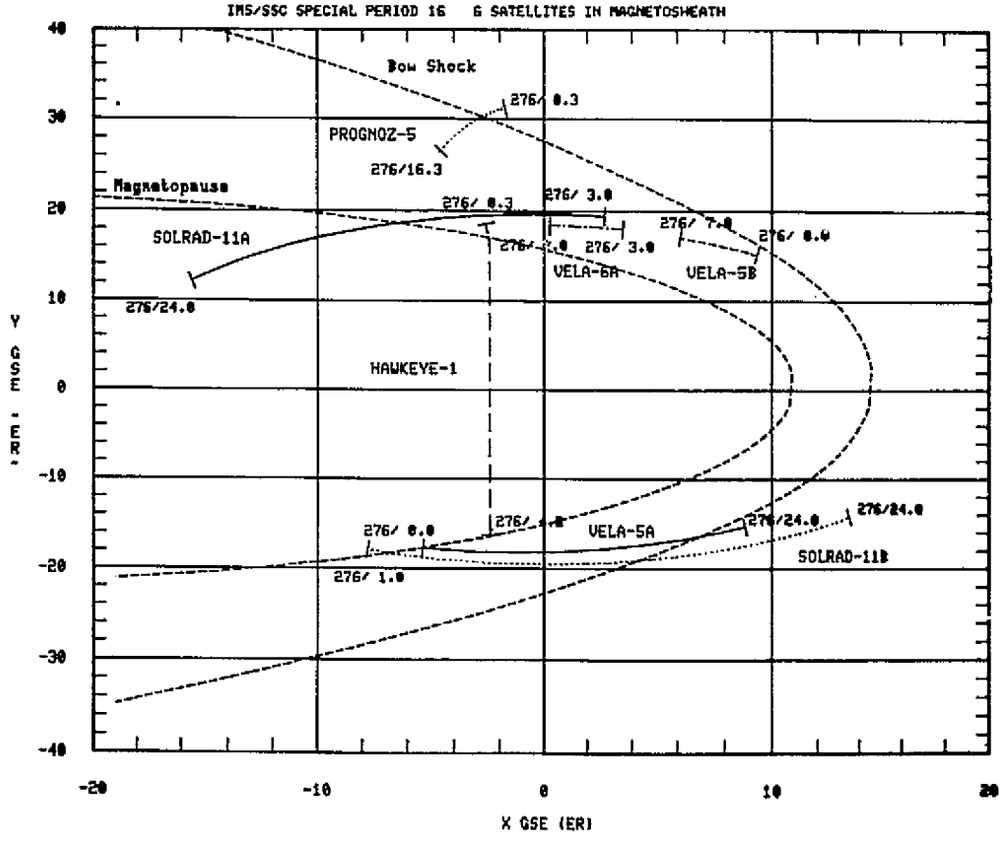
SAT ID: VELA-5A IMP-J SOLR-11B



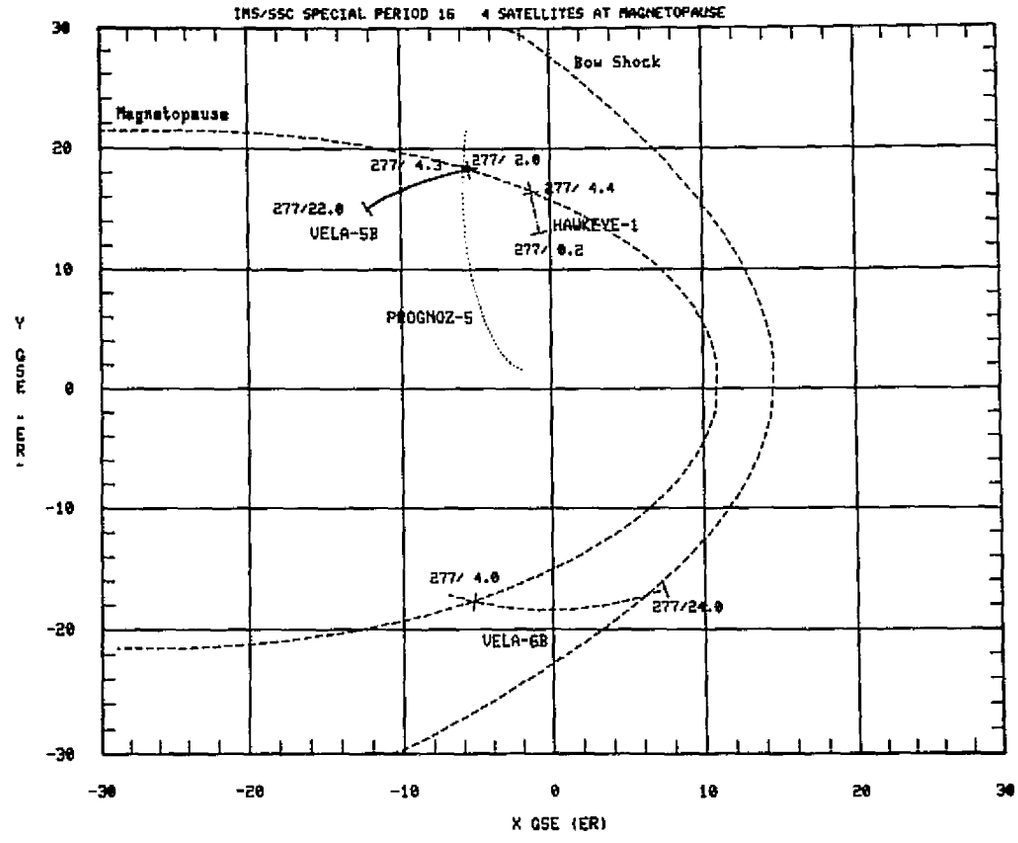
NEUTRAL SHEET PLOT
SAT ID: VELA-5A IMP-J SOLR-11B
GSM CARTESIAN COORDINATES



GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

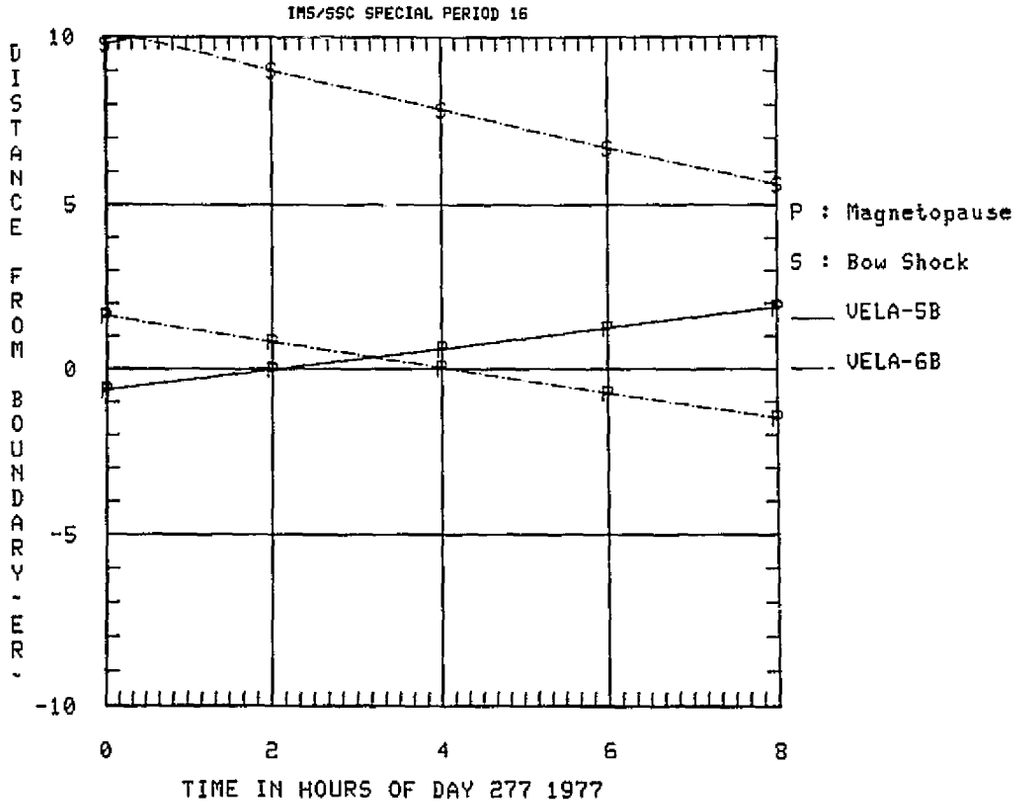


GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

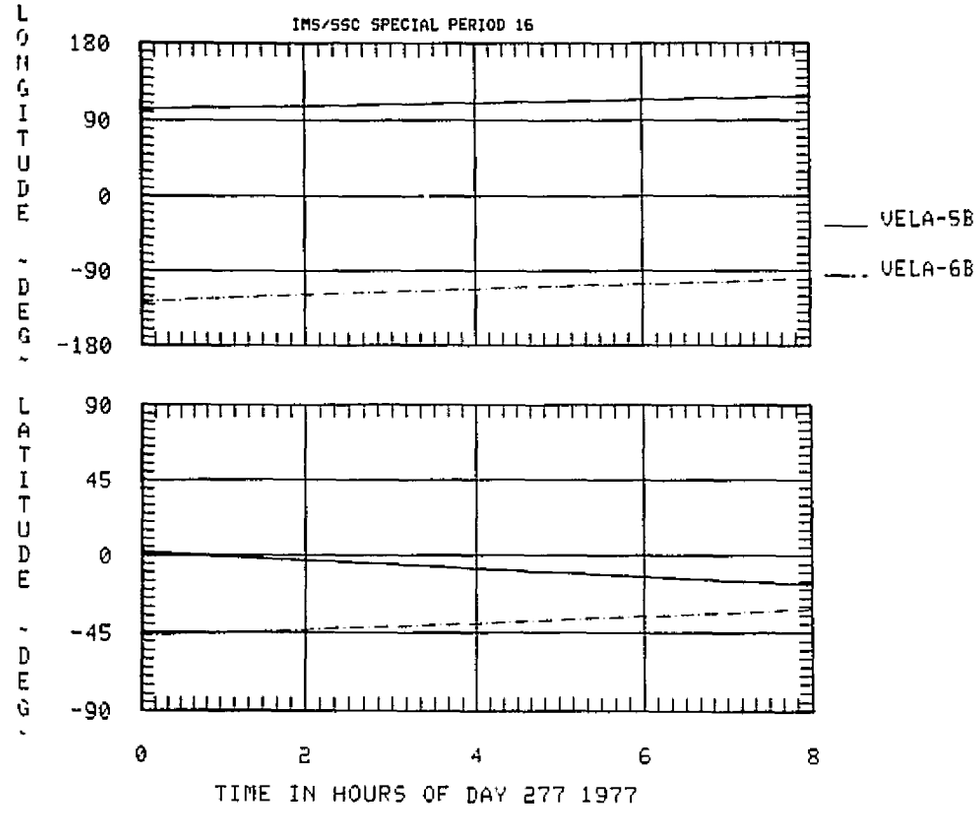


BOUNDARY PLOT

SAT ID: VELA-5B VELA-6B

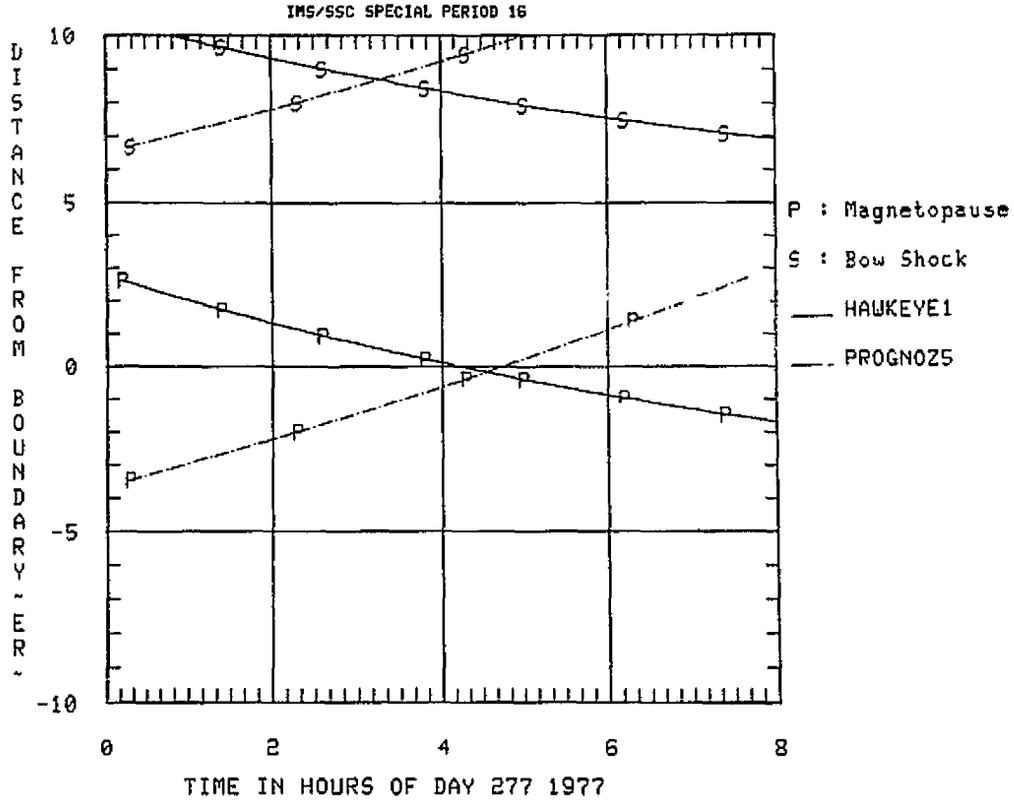


BOUNDARY PLOT
SAT ID: VELA-5B VELA-6B
ECLIPTIC POLAR COORDINATES

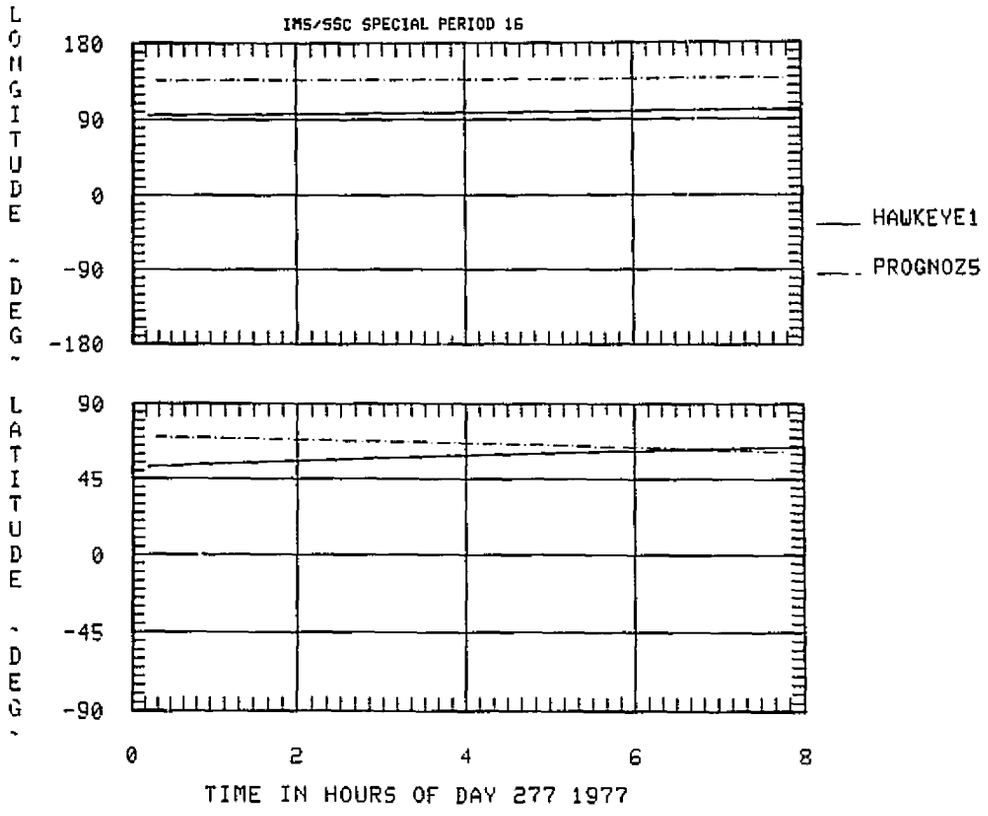


BOUNDARY PLOT

SAT ID: HAWKEYE1 PROGNOZ5

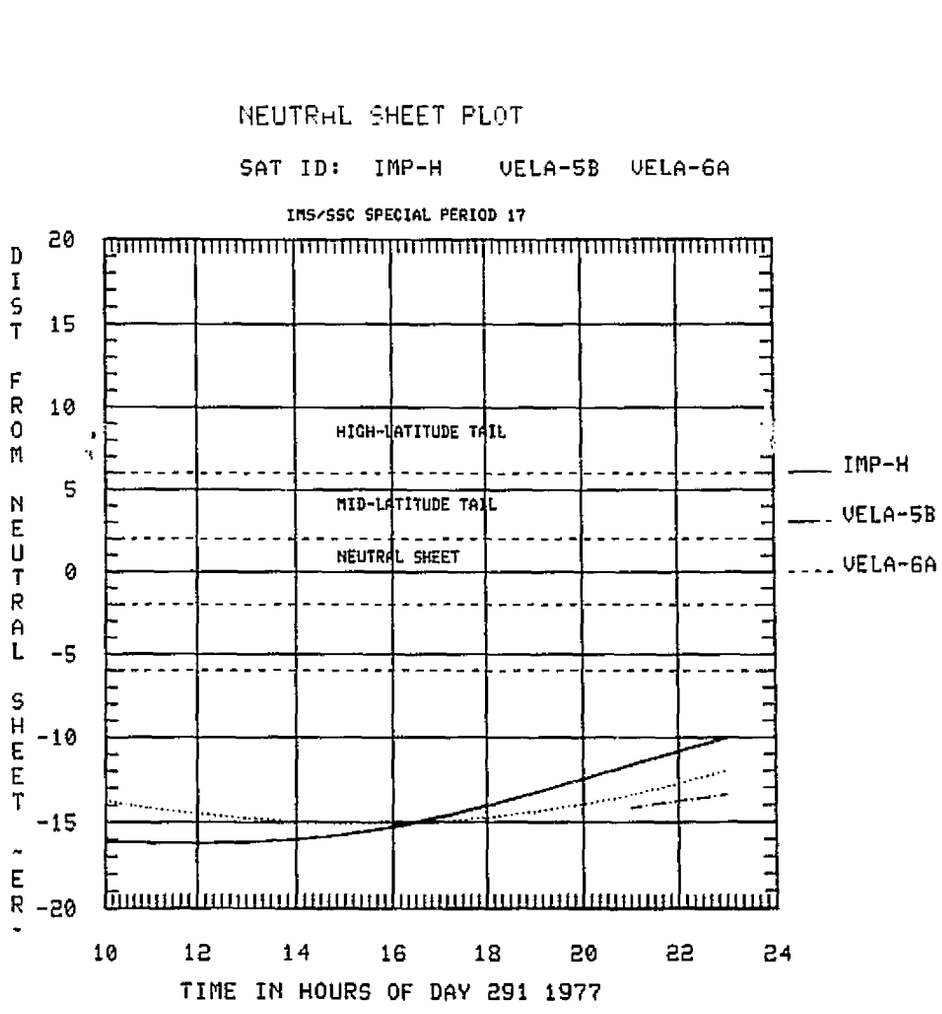


BOUNDARY PLOT
SAT ID: HAWKEYE1 PROGNOZ5
ECLIPTIC POLAR COORDINATES

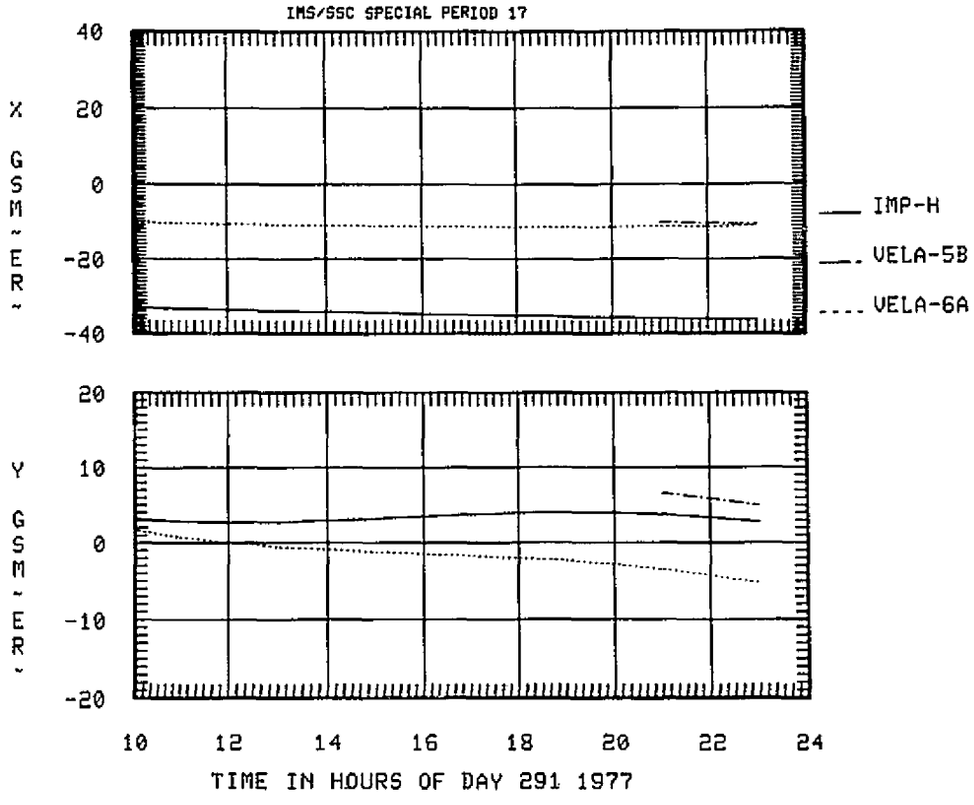


NEUTRAL SHEET PLOT

SAT ID: IMP-H VELA-5B VELA-6A

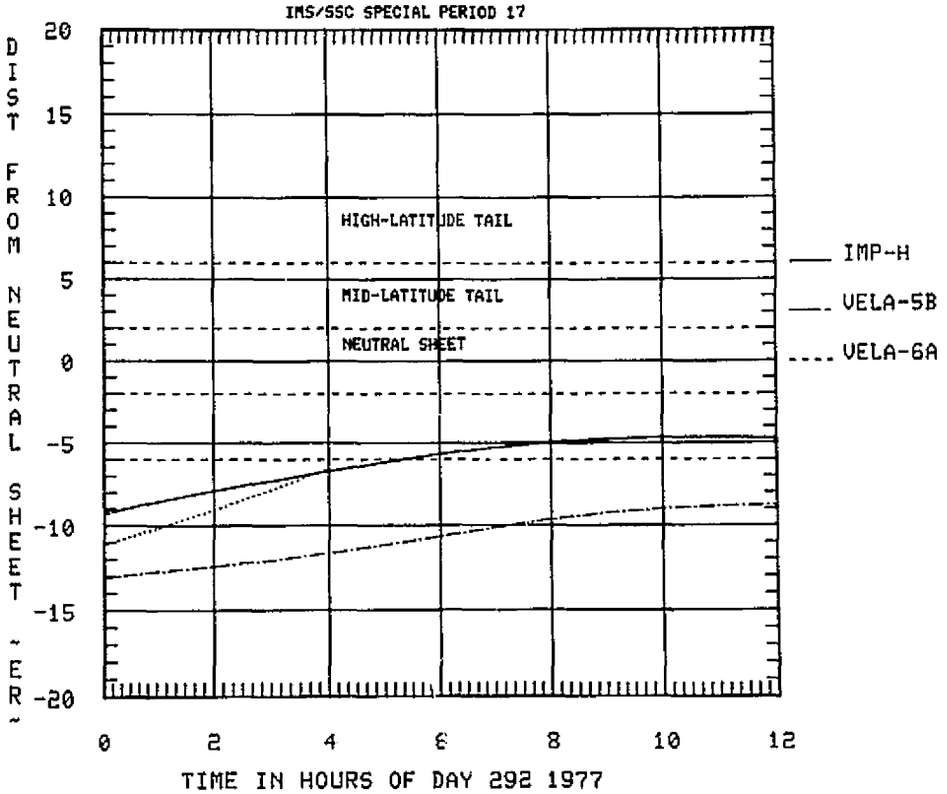


NEUTRAL SHEET PLOT
SAT ID: IMP-H VELA-5B VELA-6A
GSM CARTESIAN COORDINATES

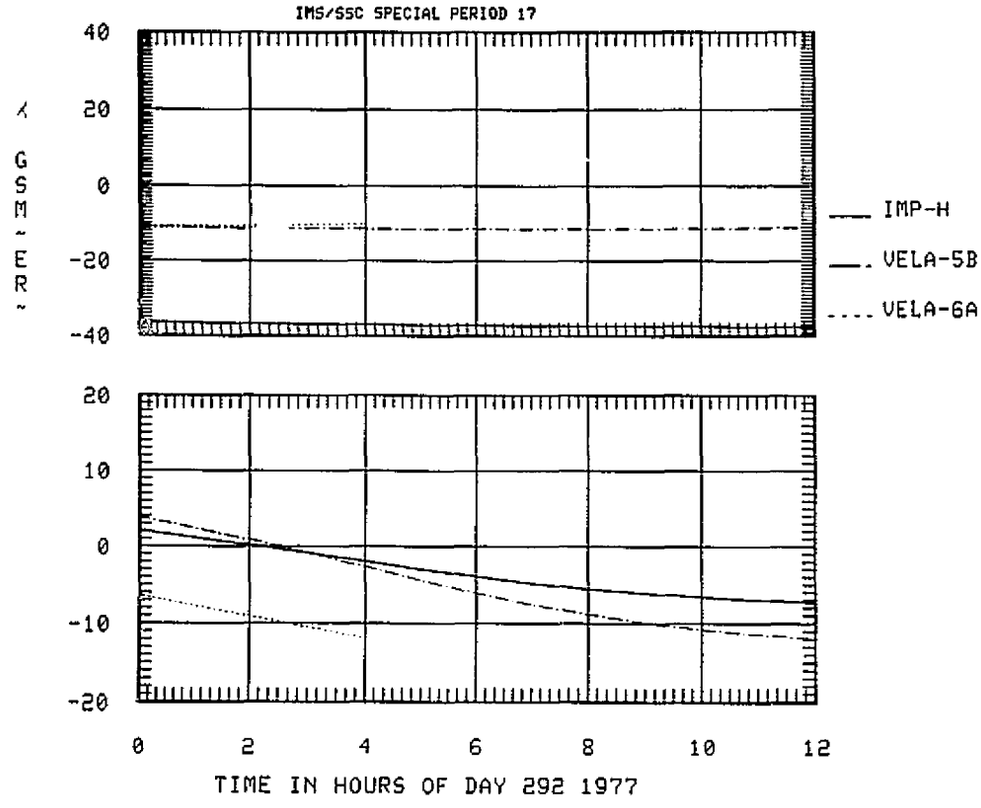


NEUTRAL SHEET PLOT

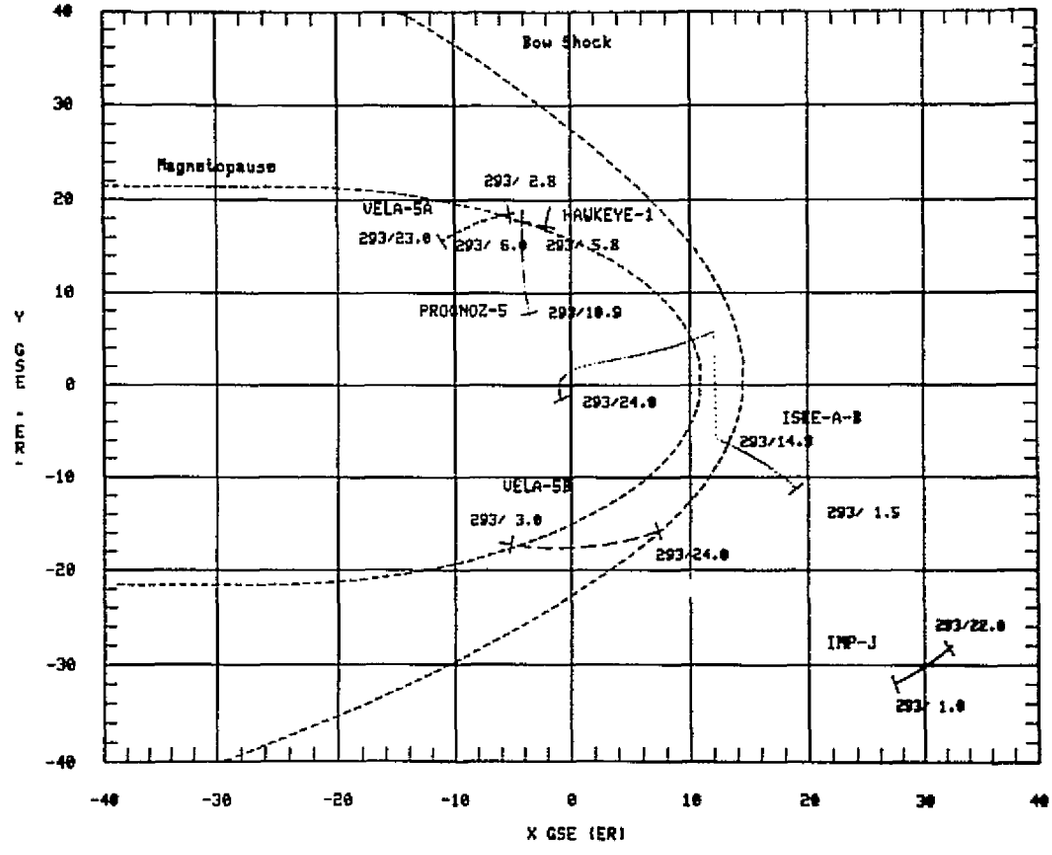
SAT ID: IMP-H VELA-5B VELA-6A



NEUTRAL SHEET PLOT
SAT ID: IMP-H VELA-5B VELA-6A
GSM CARTESIAN COORDINATES

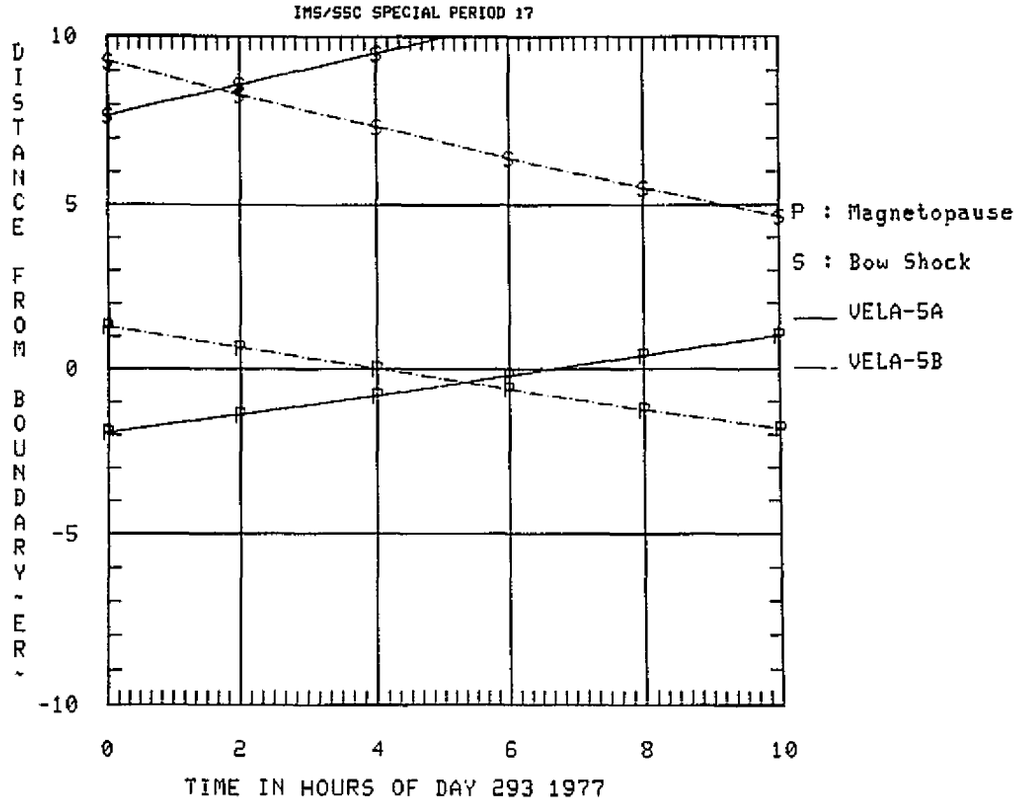


GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

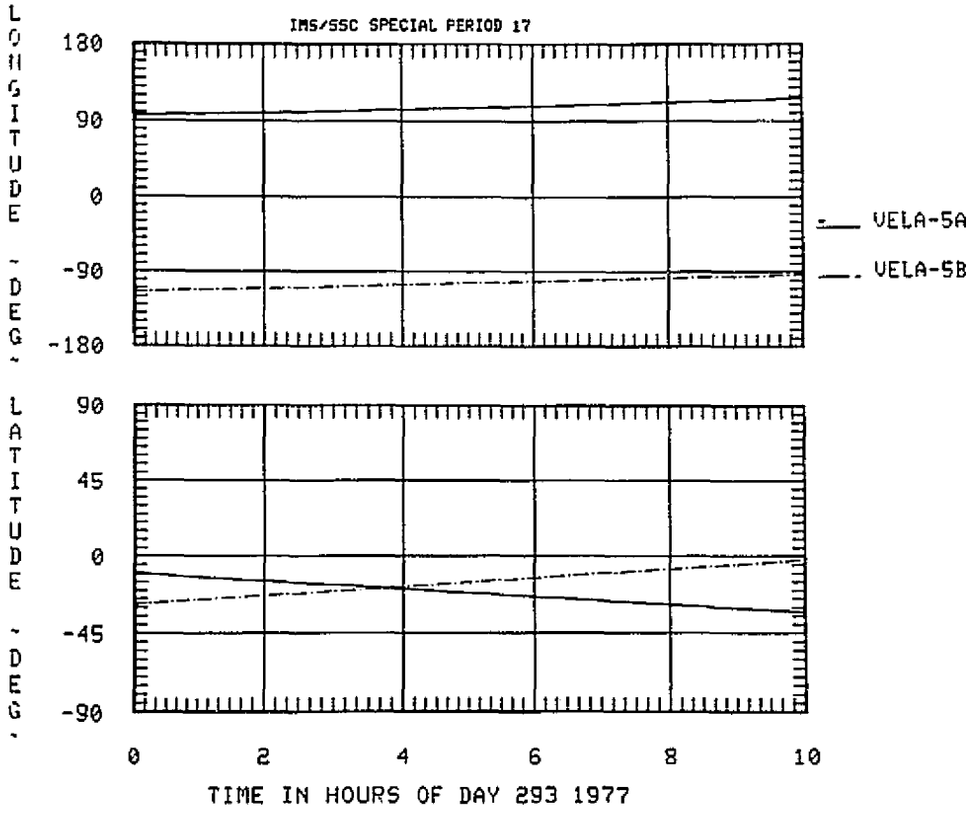


BOUNDARY PLOT

SAT ID: VELA-5A VELA-5B

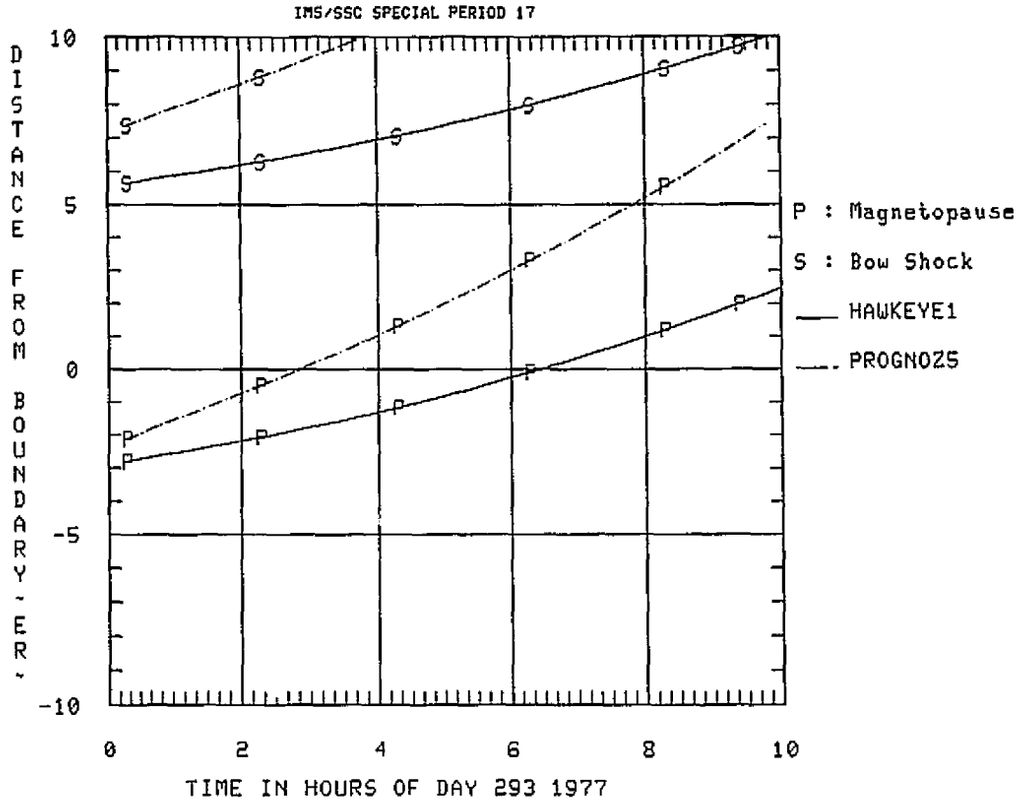


BOUNDARY PLOT
SAT ID: VELA-5A VELA-5B
ECLIPTIC POLAR COORDINATES

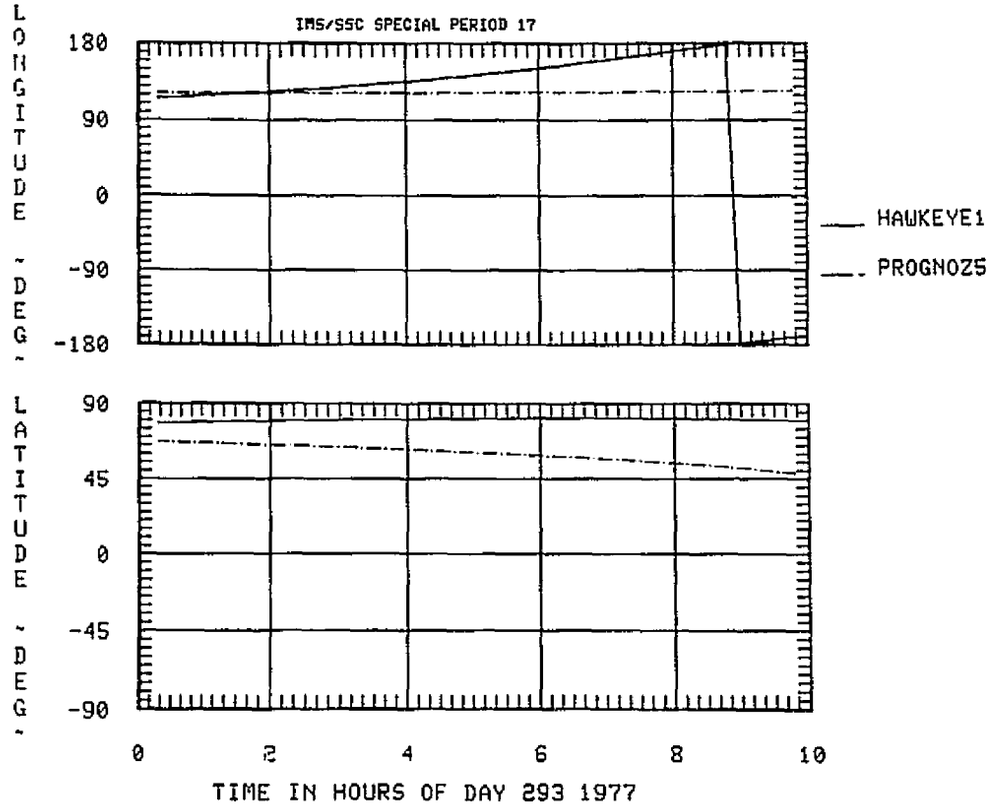


BOUNDARY PLOT

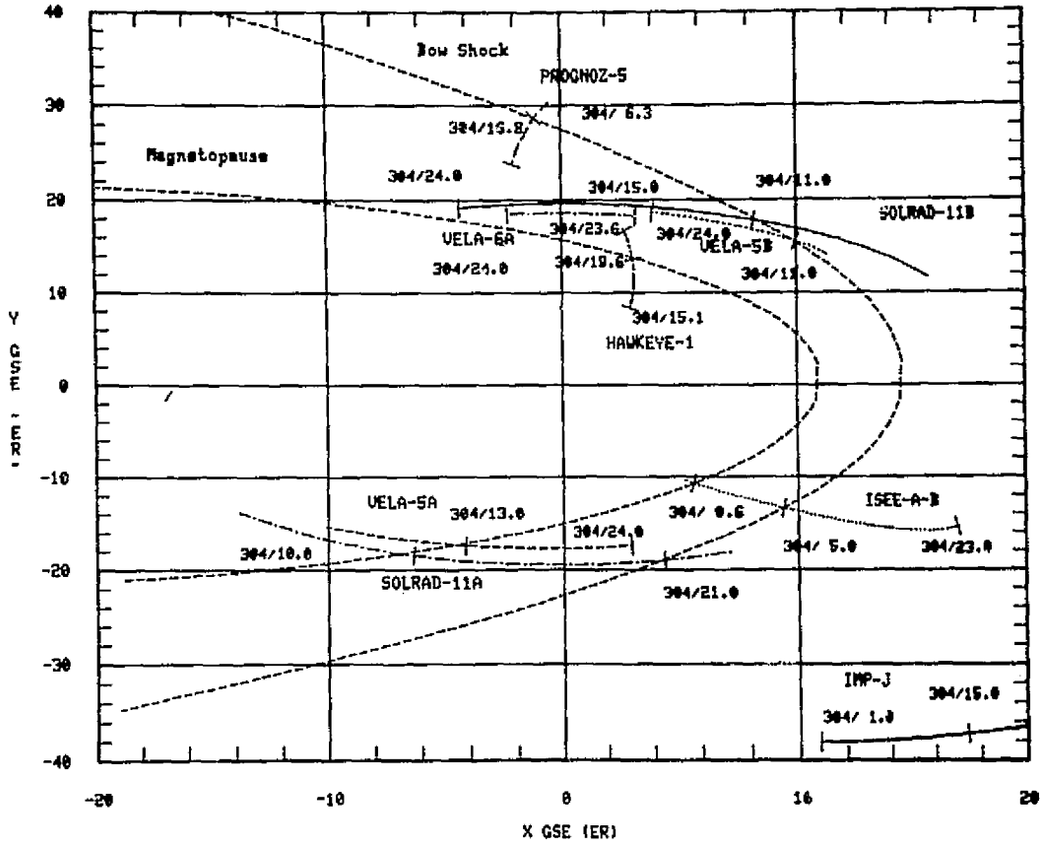
SAT ID: HAWKEYE1 PROGNOZ5



BOUNDARY PLOT
SAT ID: HAWKEYE1 PROGNOZ5
ECLIPTIC POLAR COORDINATES



GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION



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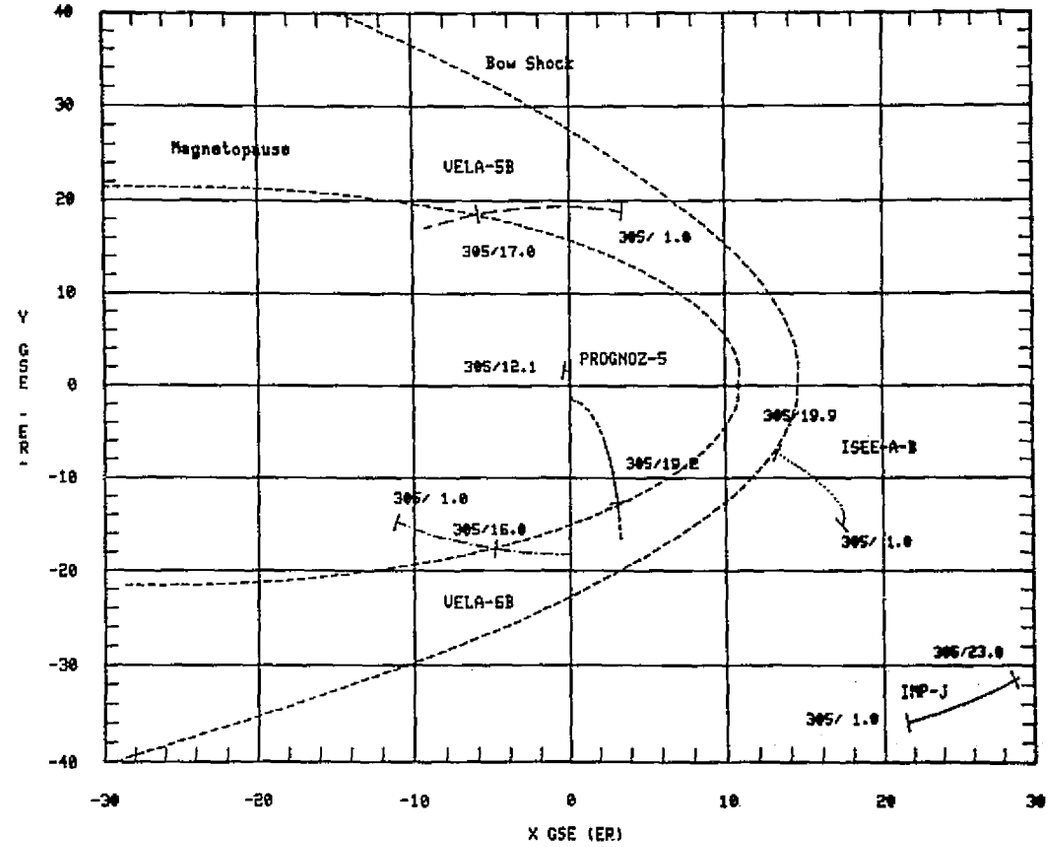
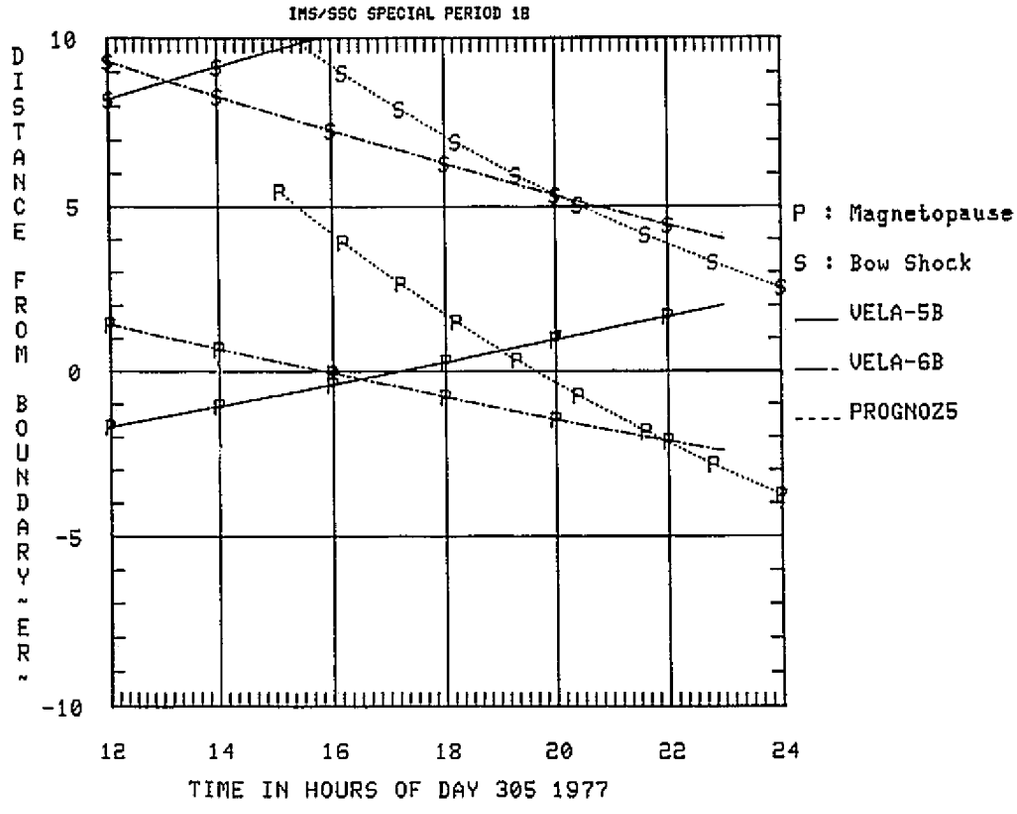
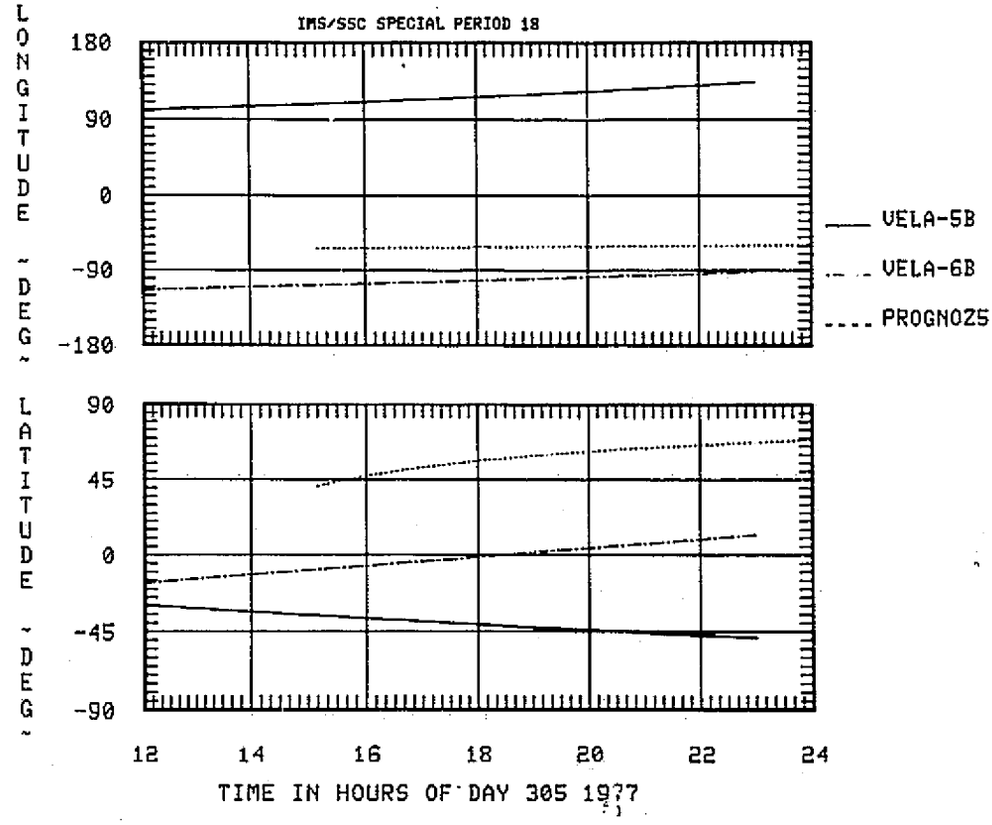


BOUNDARY PLOT

SAT ID: VELA-5B VELA-6B PROGNOZ5

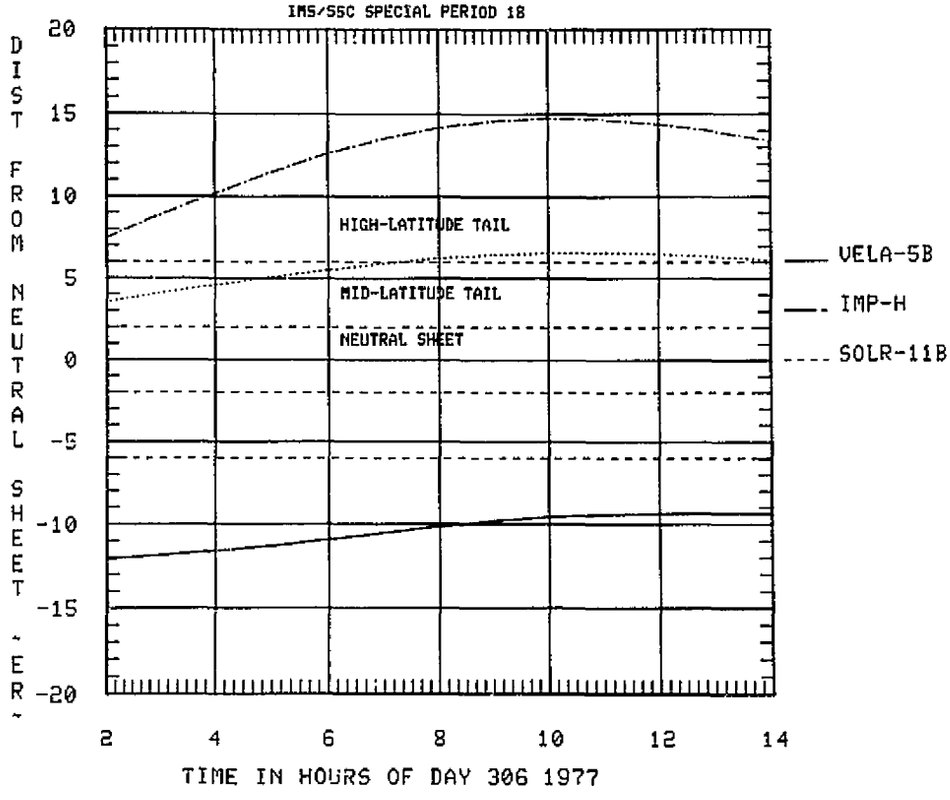


BOUNDARY PLOT
SAT ID: VELA-5B VELA-6B PROGNOZ5
ECLIPTIC POLAR COORDINATES

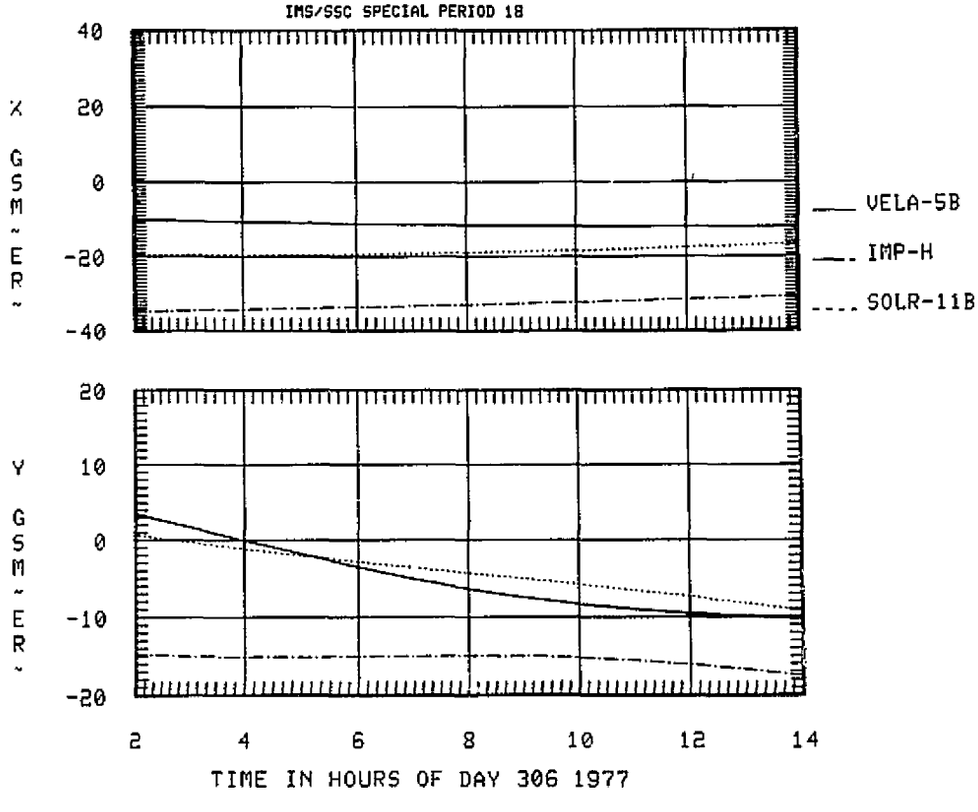


NEUTRAL SHEET PLOT

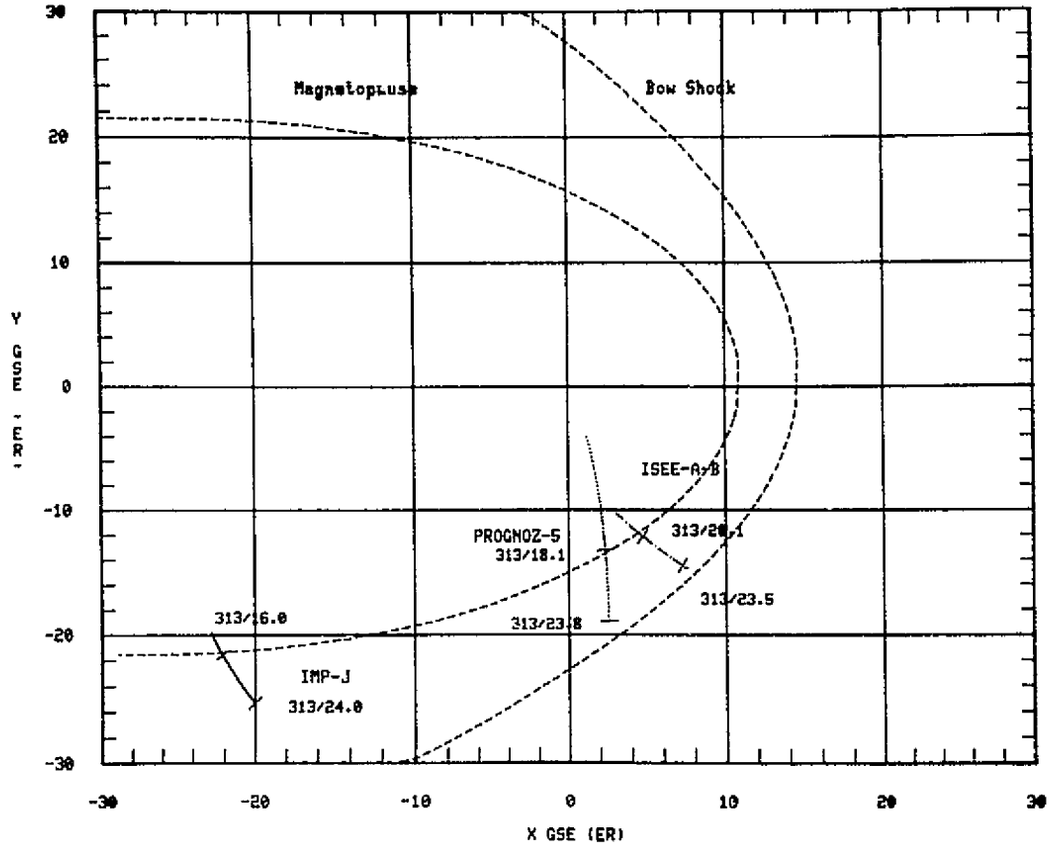
SAT ID: VELA-5B IMP-H SOLR-11B



NEUTRAL SHEET PLOT
SAT ID: VELA-5B IMP-H SOLR-11B
GSM CARTESIAN COORDINATES



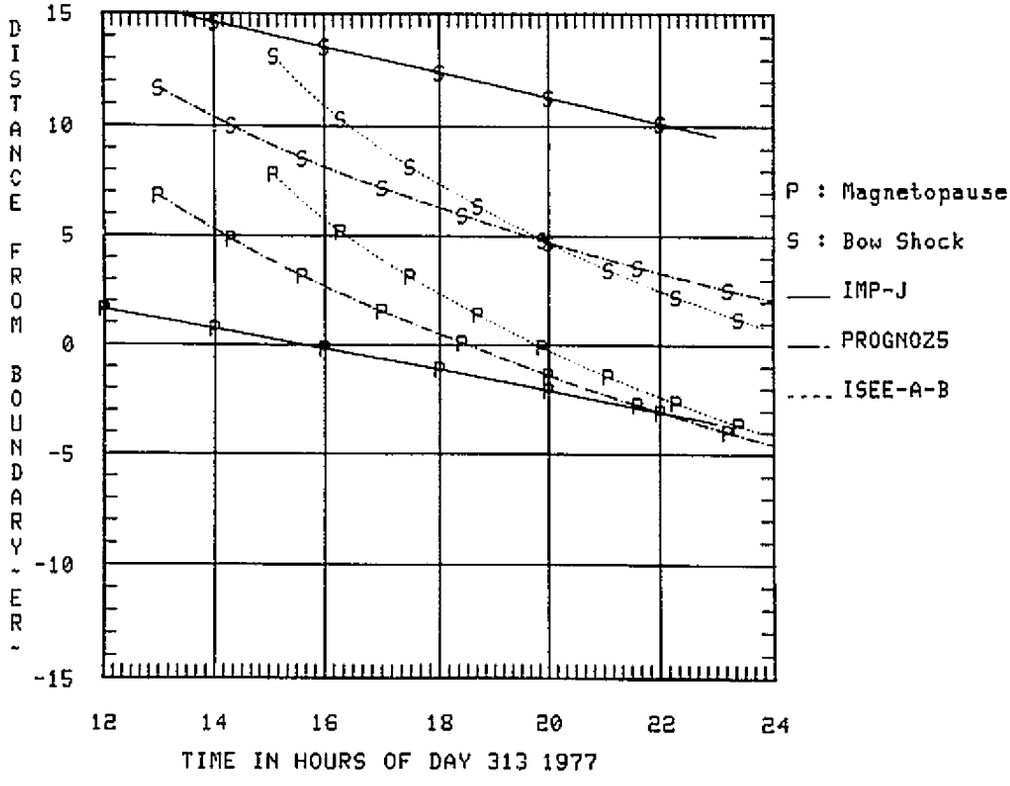
GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION



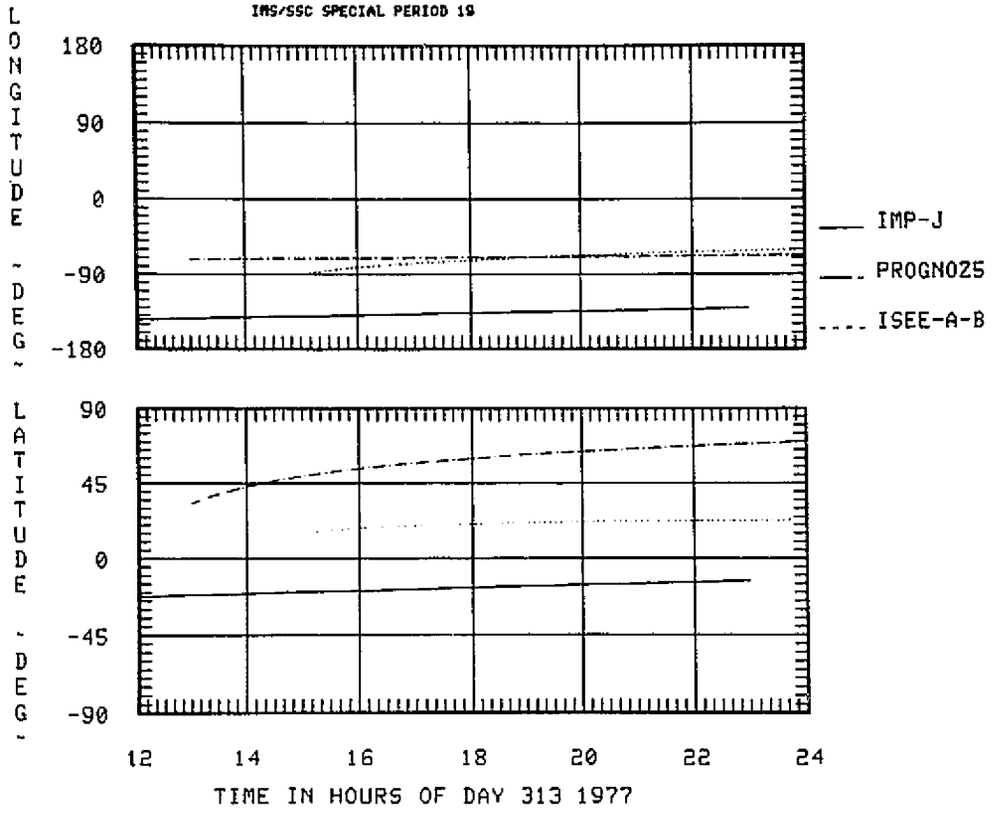
BOUNDARY PLOT

SAT ID: IMP-J PROGNOZ5 ISEE-A-B

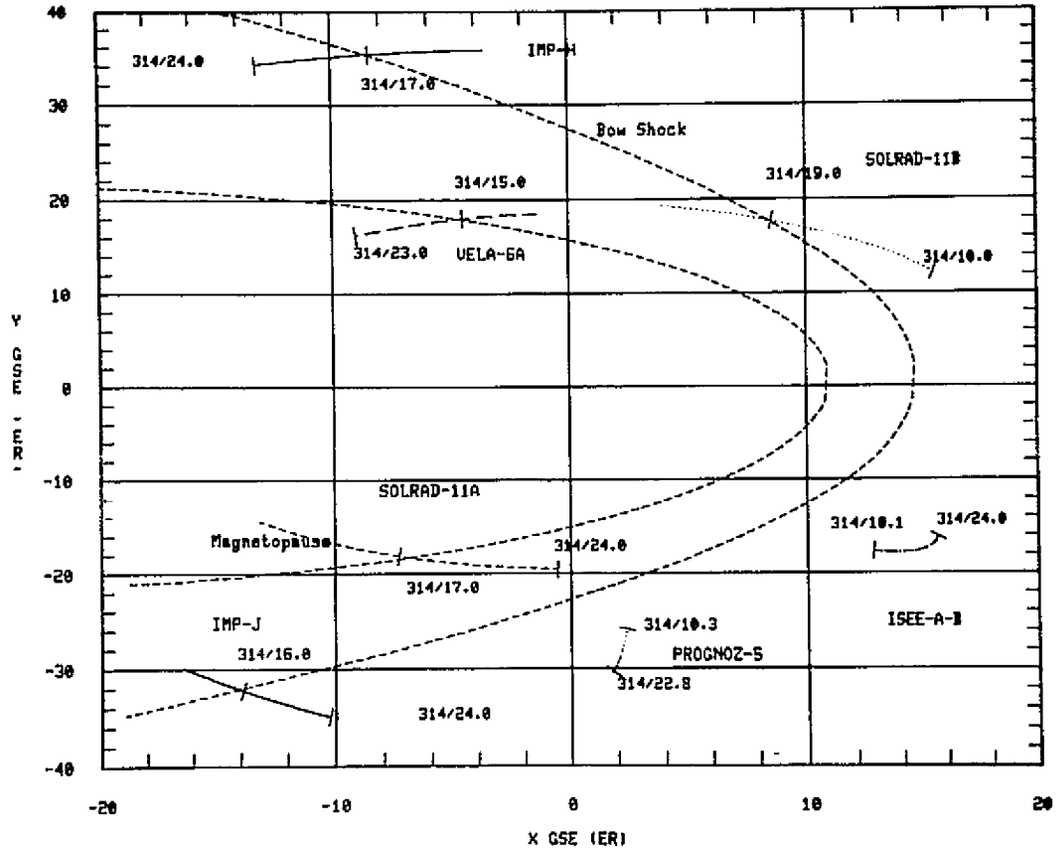
IMS/SSC SPECIAL PERIOD 19



BOUNDARY PLOT
SAT ID: IMP-J PROGNOZ5 ISEE-A-B
ECLIPTIC POLAR COORDINATES



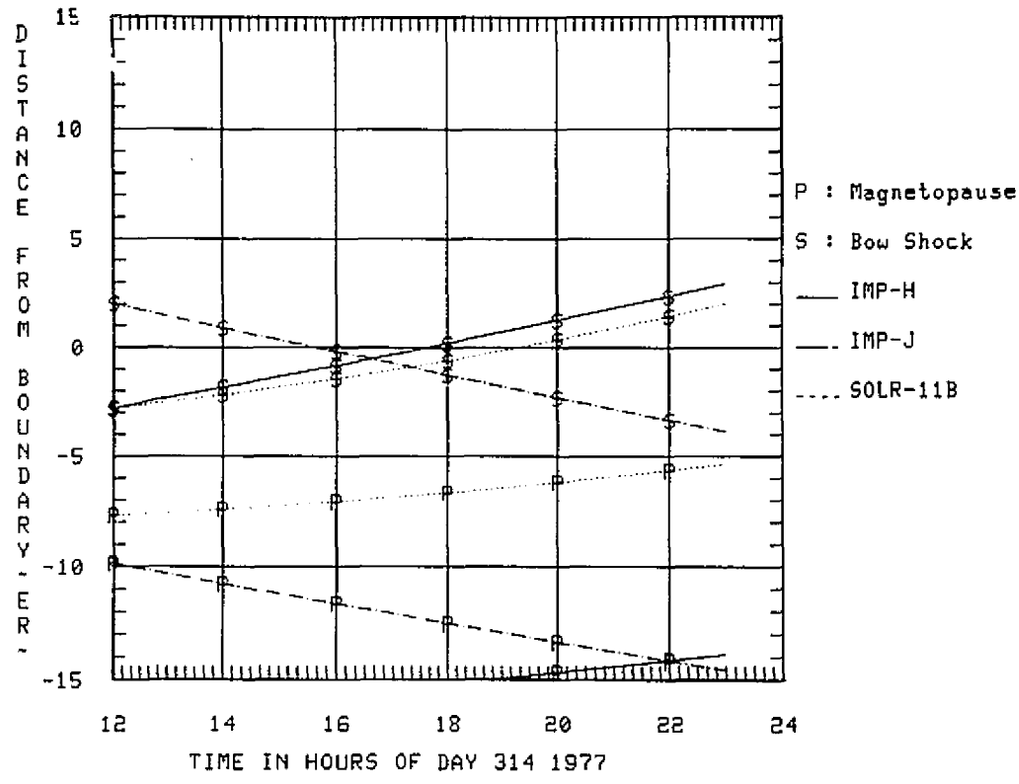
GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION



BOUNDARY PLOT

SAT ID: IMP-H IMP-J SOLR-11B

IMS/SSC SPECIAL PERIOD 19

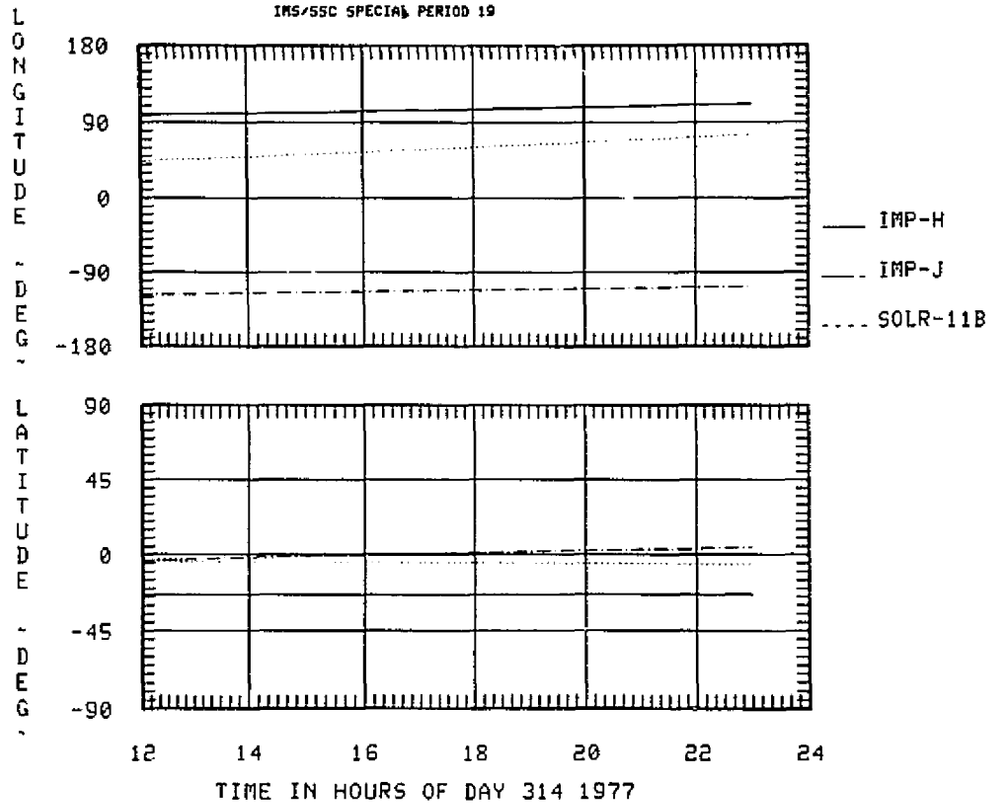


BOUNDARY PLOT

SAT ID: IMP-H IMF-J SOLR-11B

ECLIPTIC POLAR COORDINATES

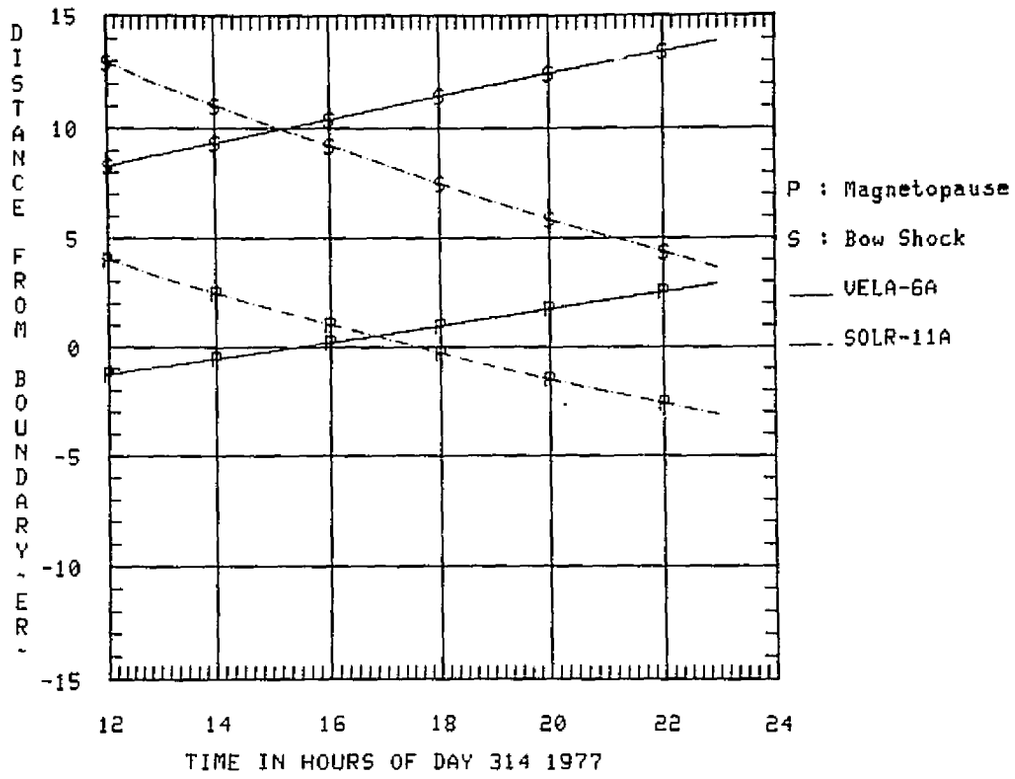
IMS/SSC SPECIAL PERIOD 19



BOUNDARY PLOT

SAT ID: VELA-6A SOLR-11A

IMS/SSC SPECIAL PERIOD 19

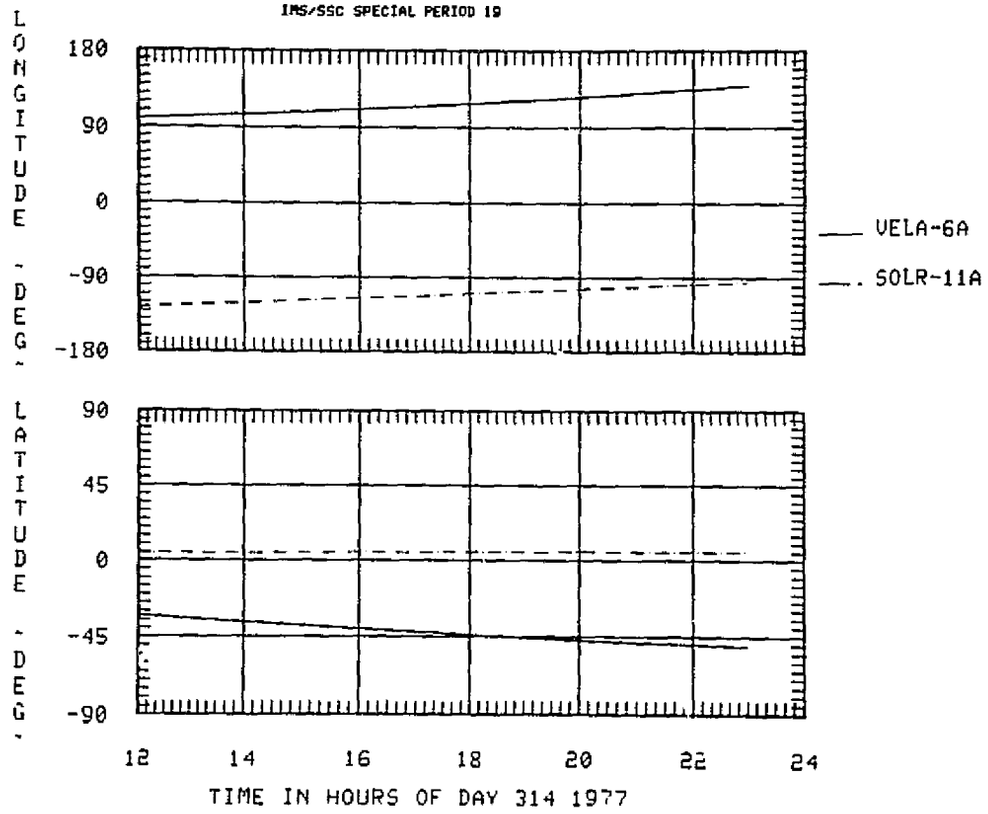


BOUNDARY PLOT

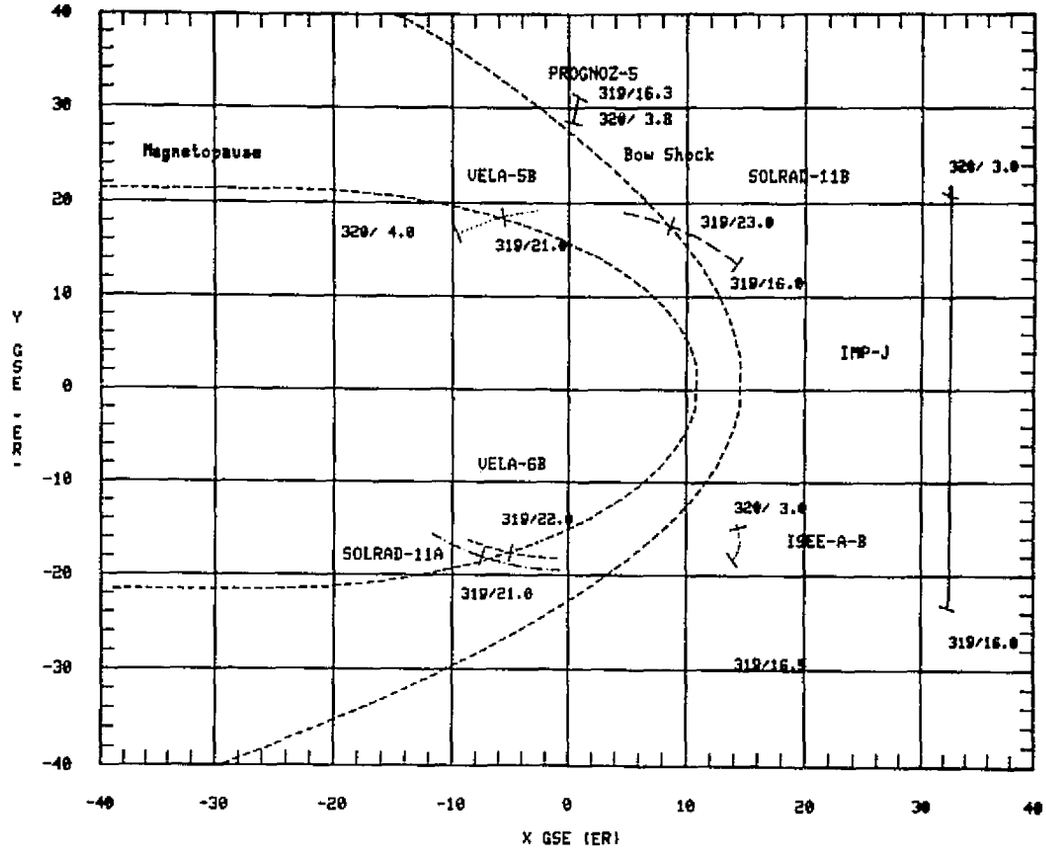
SAT ID: VELA-6A SOLR-11A

ECLIPTIC POLAR COORDINATES

IMS/SSC SPECIAL PERIOD 19



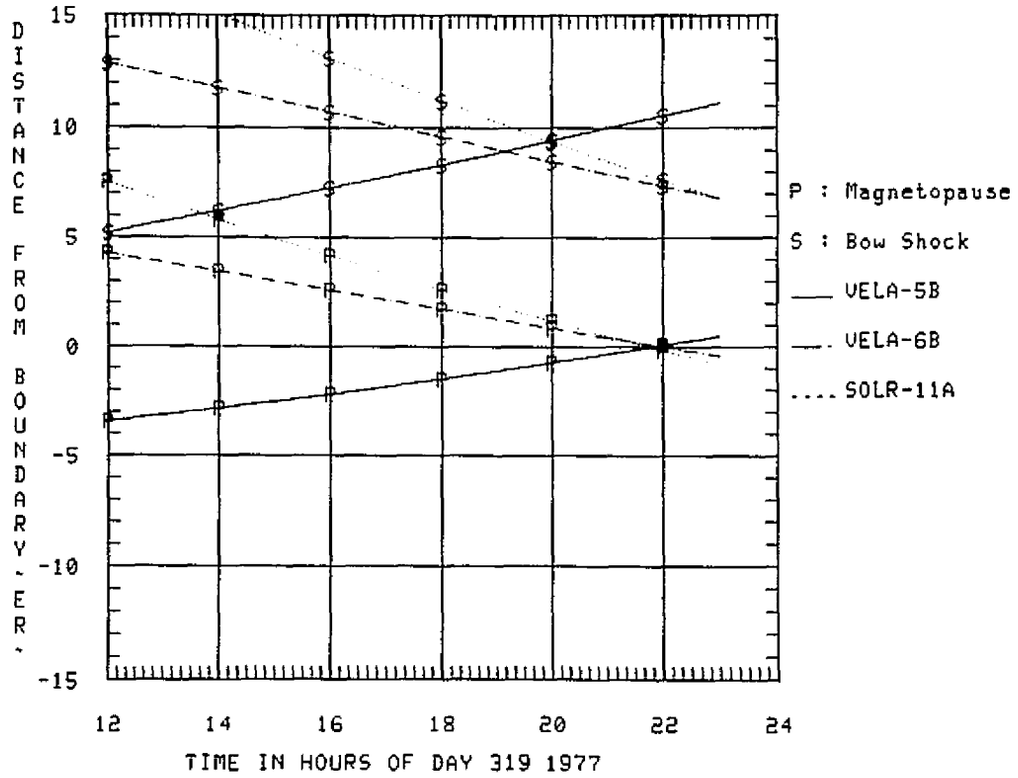
GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION



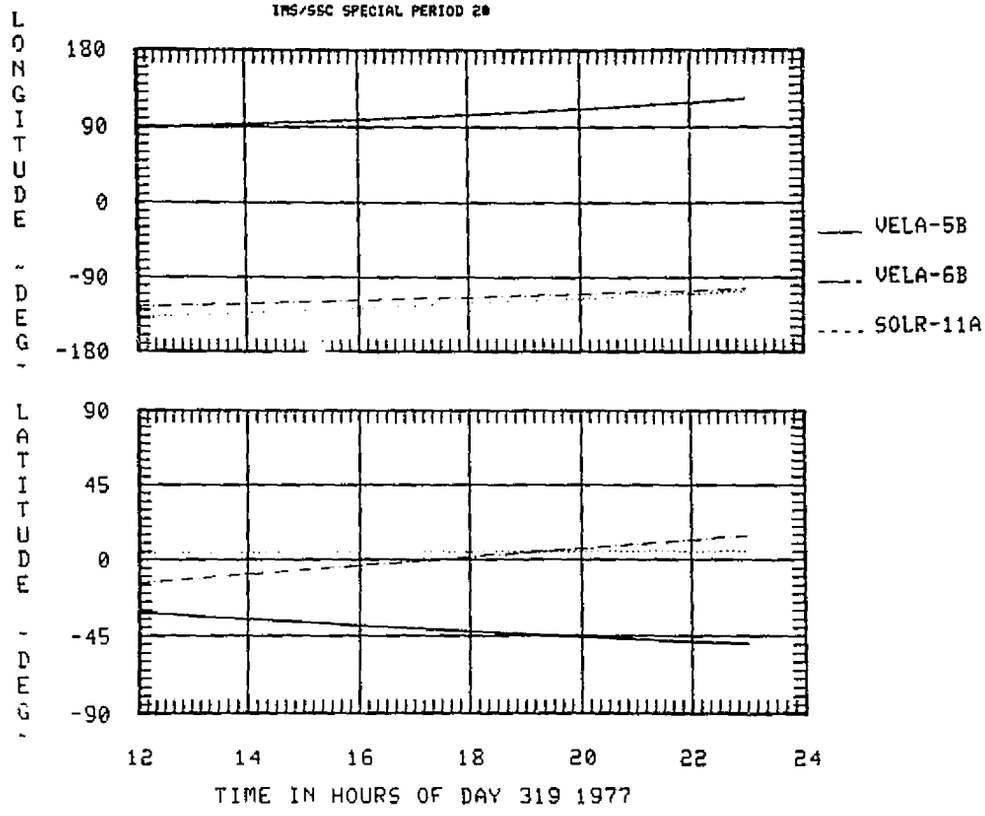
BOUNDARY PLOT

SAT ID: VELA-5B VELA-6B SOLR-11A

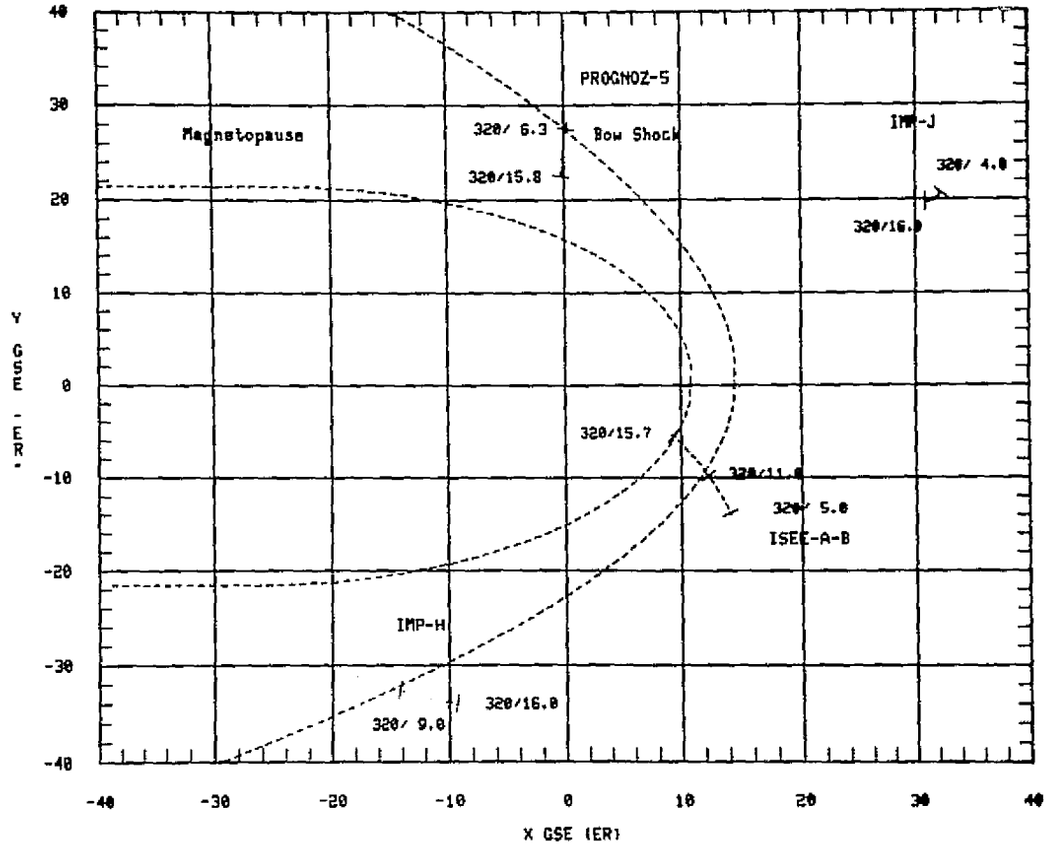
IMS/SSC SPECIAL PERIOD 20



BOUNDARY PLOT
SAT ID: VELA-5B VELA-6B SOLR-11A
ECLIPTIC POLAR COORDINATES



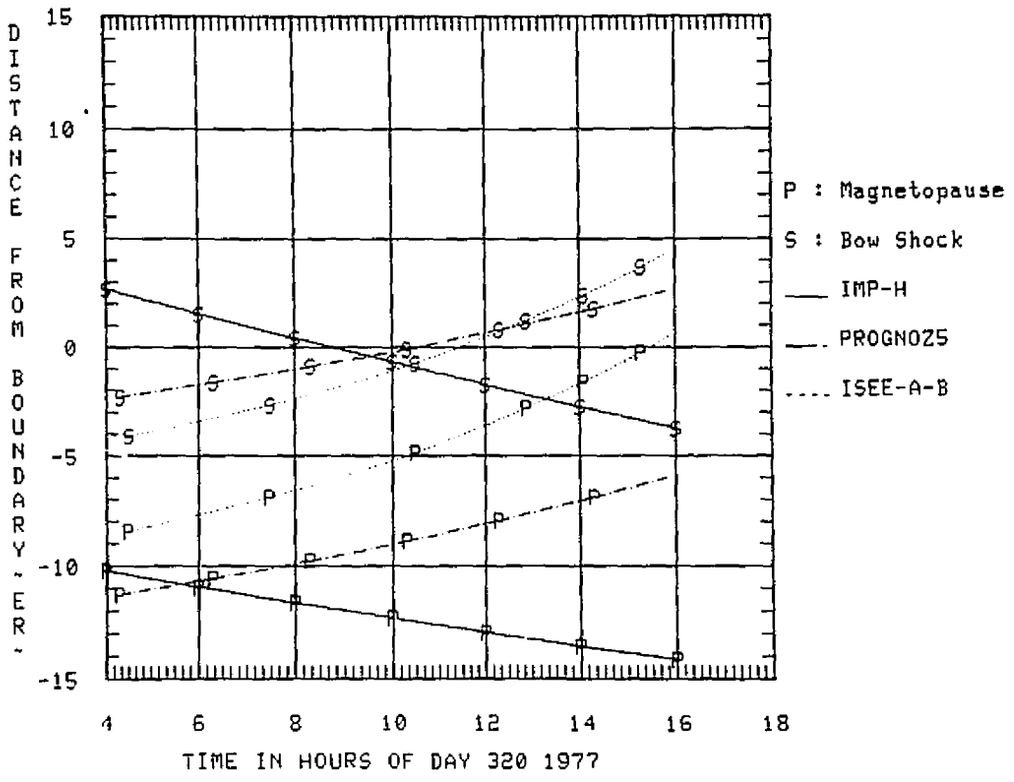
GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION



BOUNDARY PLOT

SAT ID: IMP-H PROGNOZ5 ISEE-A-B

IMS/SSC SPECISL PERIOD 20

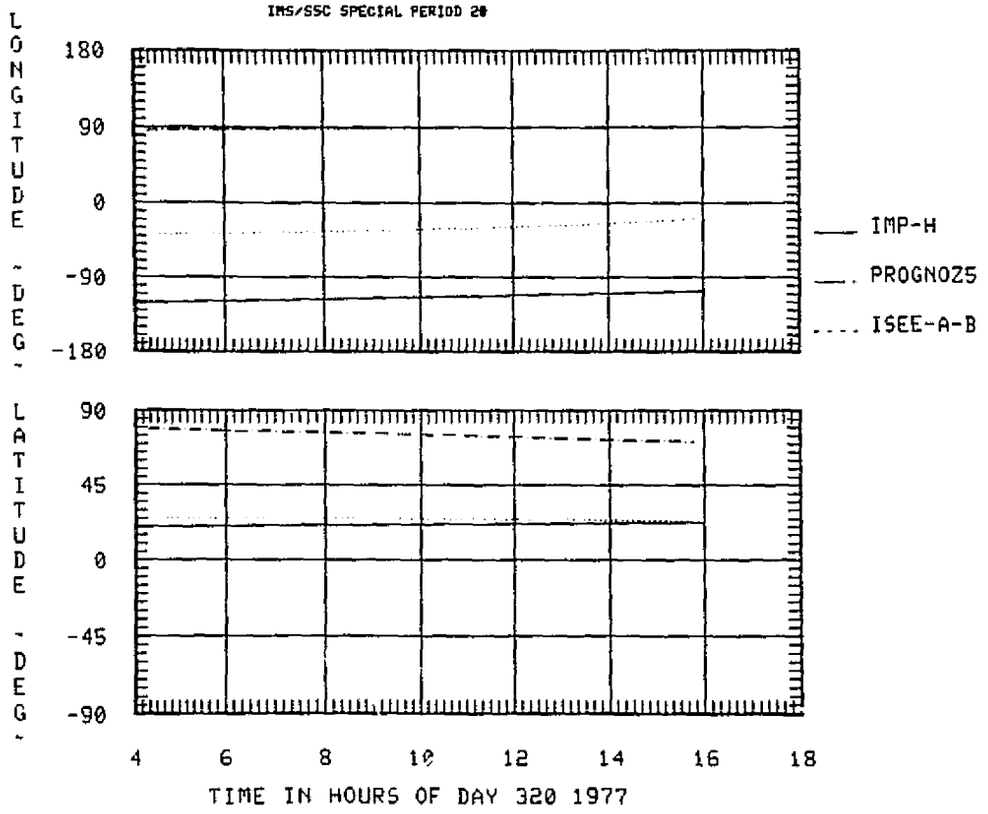


BOUNDARY PLOT

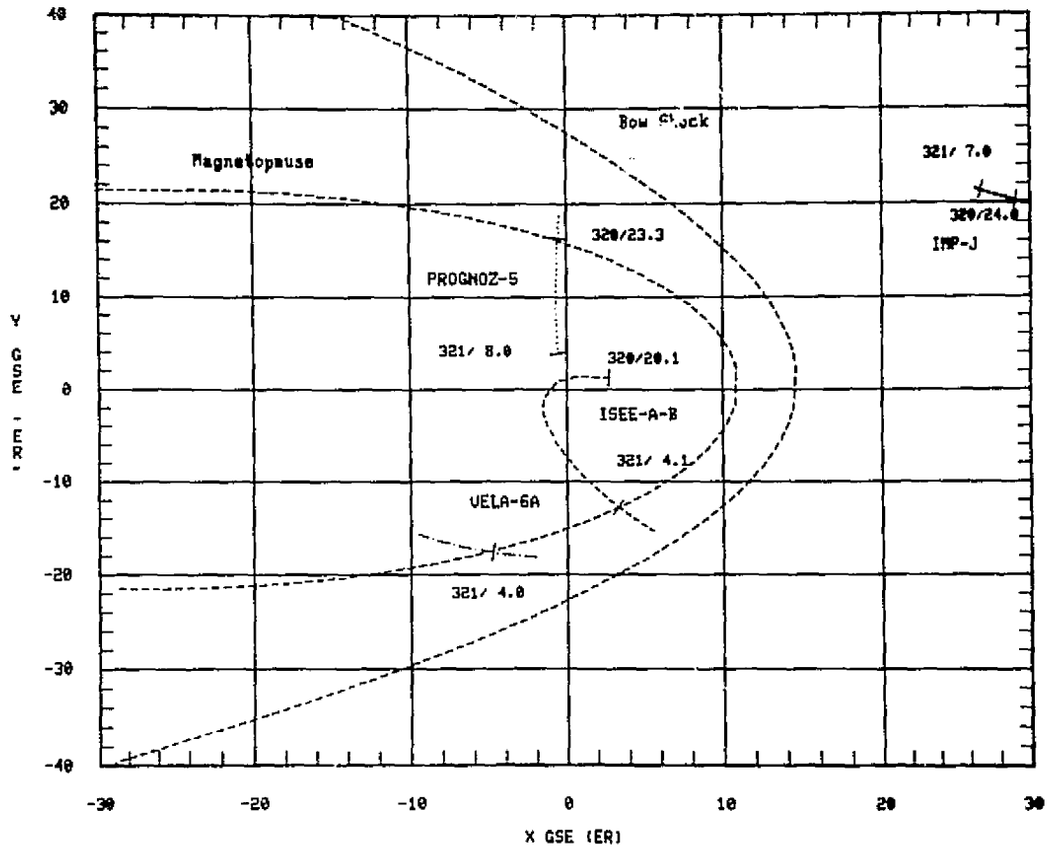
SAT ID: IMP-H PROGNOZ5 ISEE-A-B

ECLIPTIC POLAR COORDINATES

IMS/SSC SPECIAL PERIOD 20



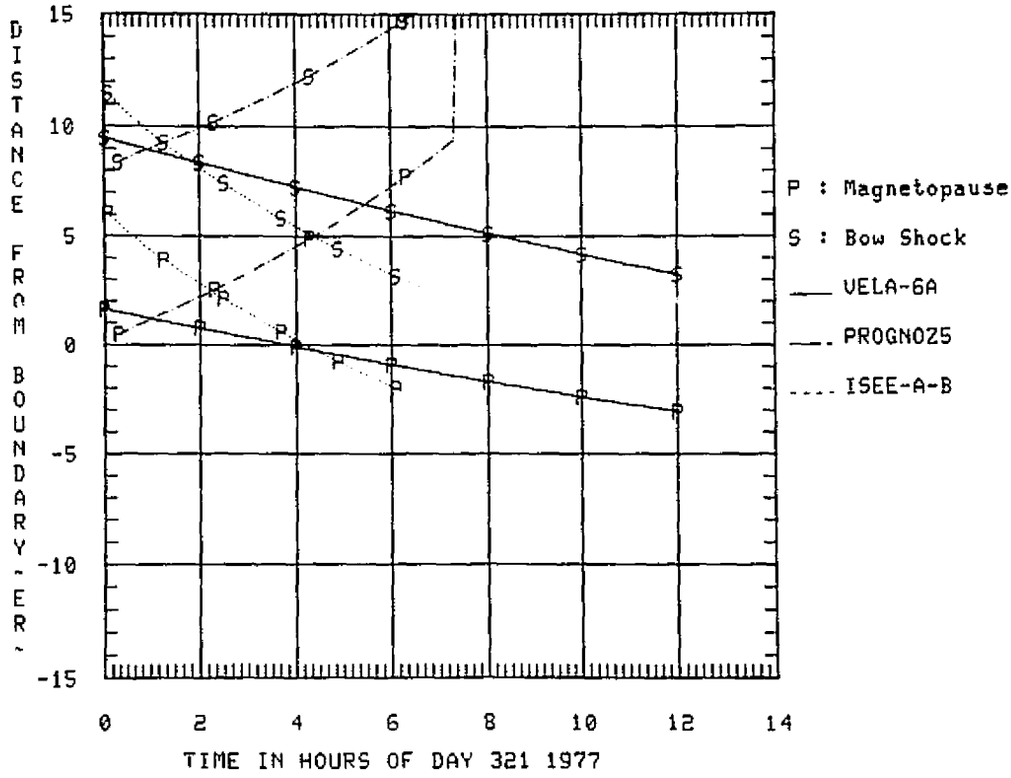
GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION



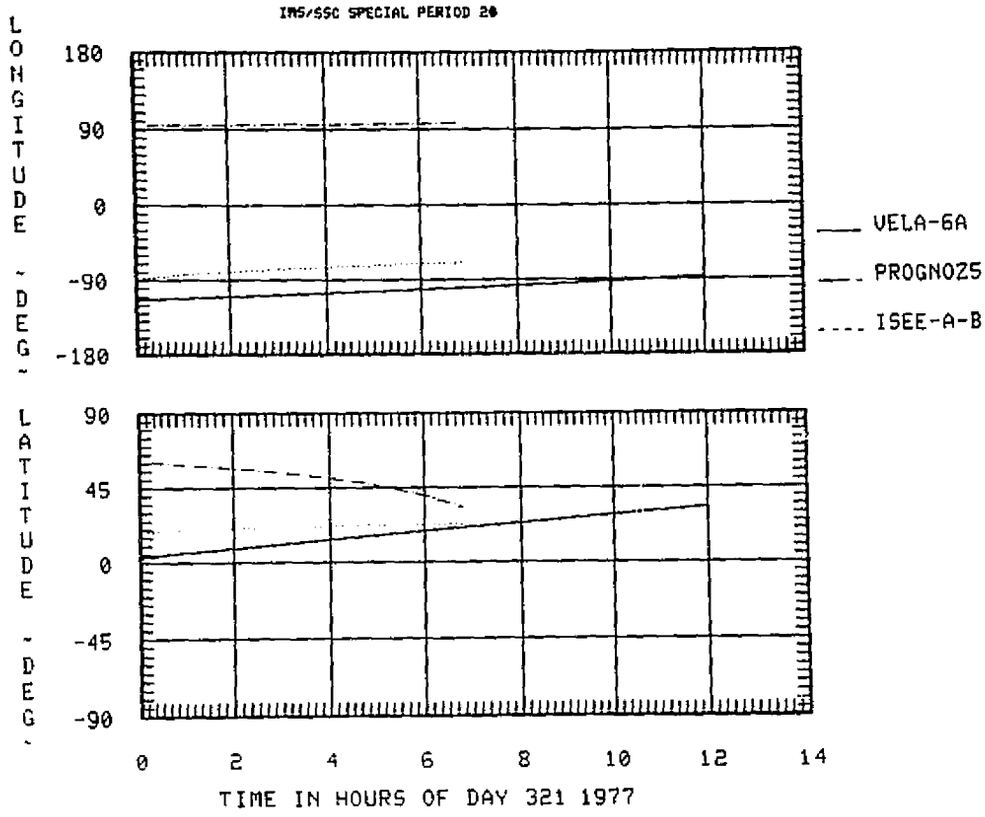
BOUNDARY PLOT

SAT ID: VELA-6A PROGNOZ5 ISEE-A-B

IMS/SSC SPECIAL PERIOD 20



BOUNDARY PLOT
SAT ID: VELA-6A PROGNOZ5 ISEE-A-B
ECLIPTIC POLAR COORDINATES



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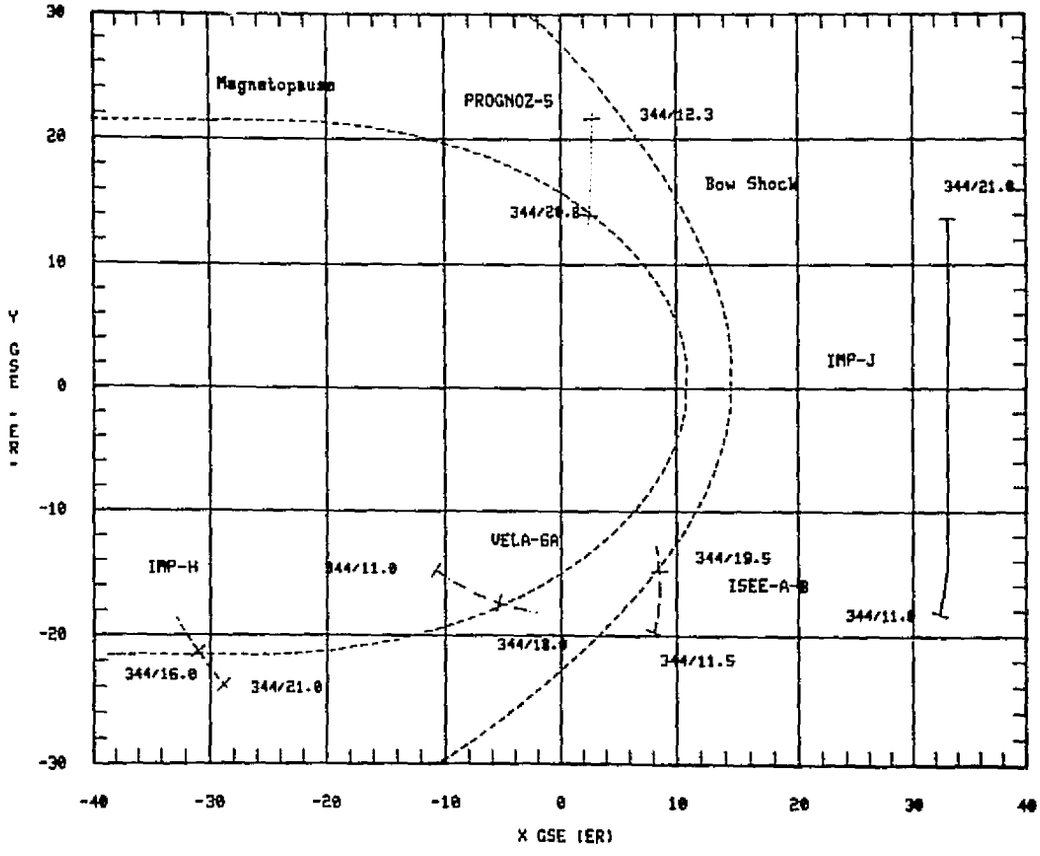
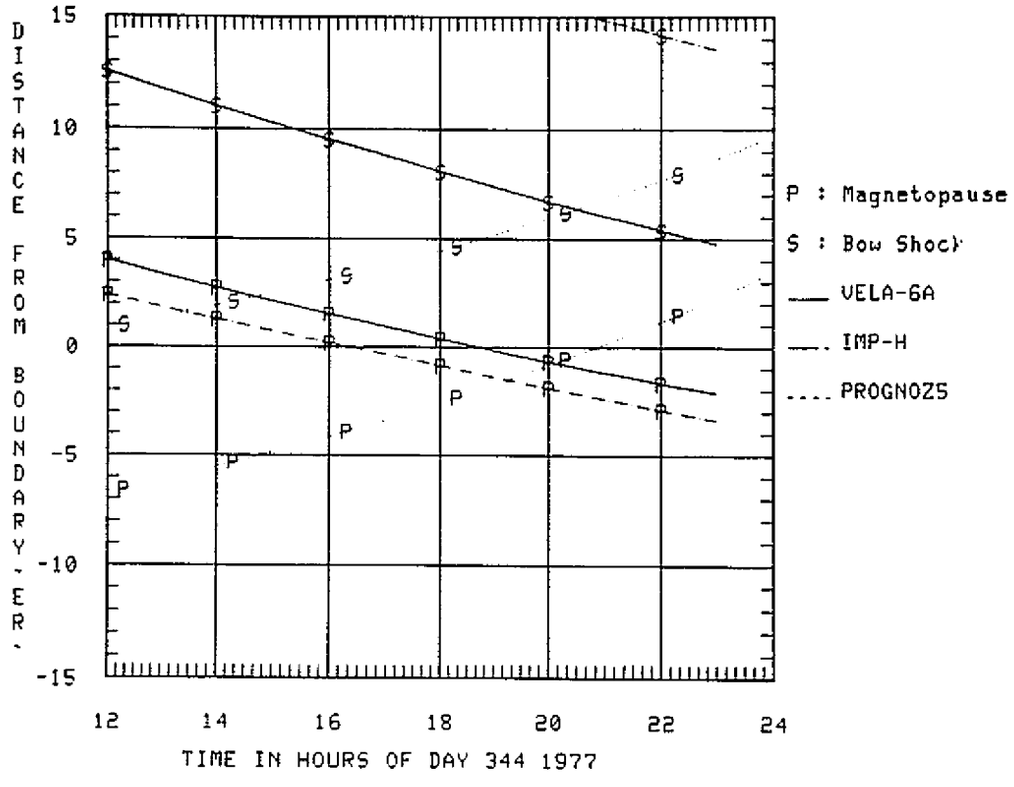


BOUNDARY PLOT

SAT ID: VELA-6A IMP-H PROGNOZ5

IMS/SSC SPECIAL PERIOD 21

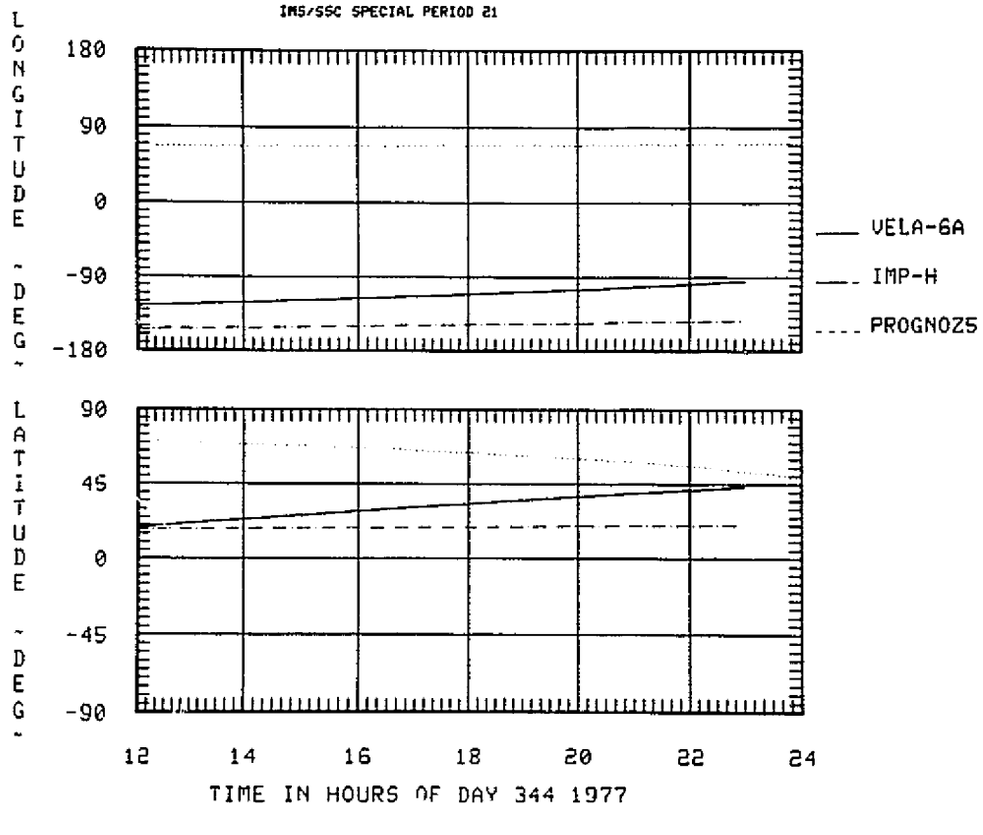


BOUNDARY PLOT

SAT ID: VELA-6A IMP-H PROGNOZ5

ECLIPTIC POLAR COORDINATES

IMS/SSC SPECIAL PERIOD 21



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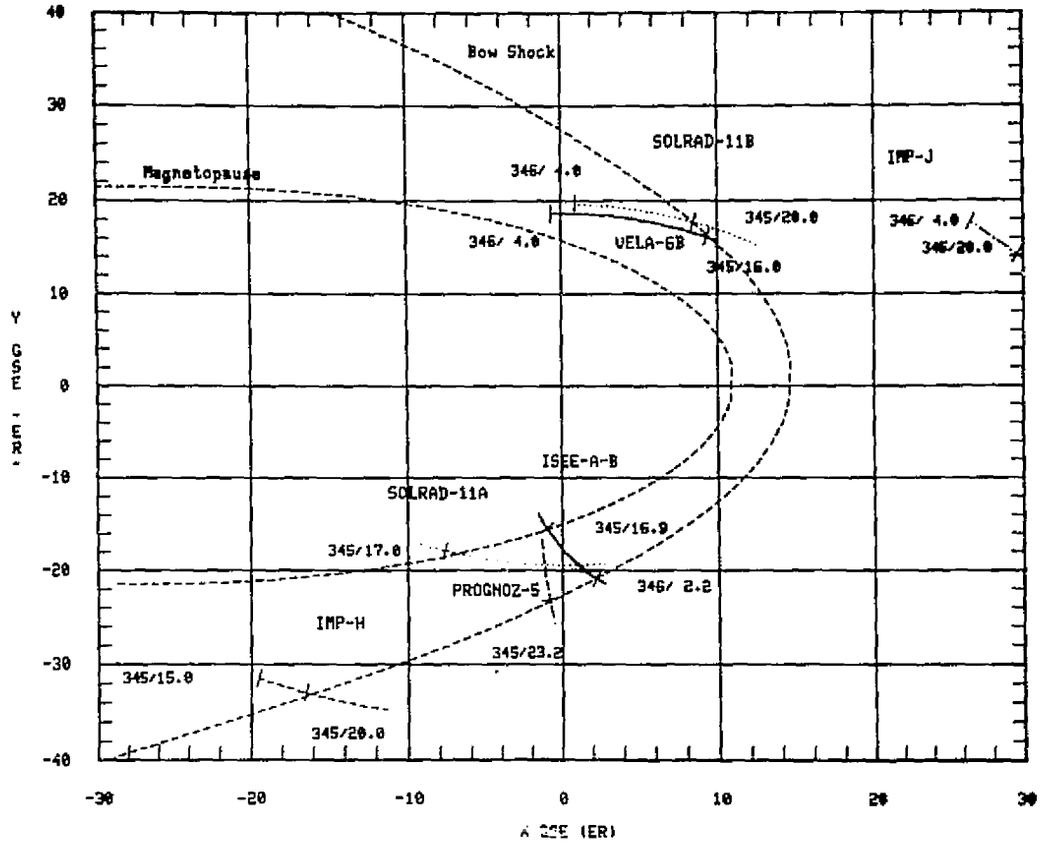

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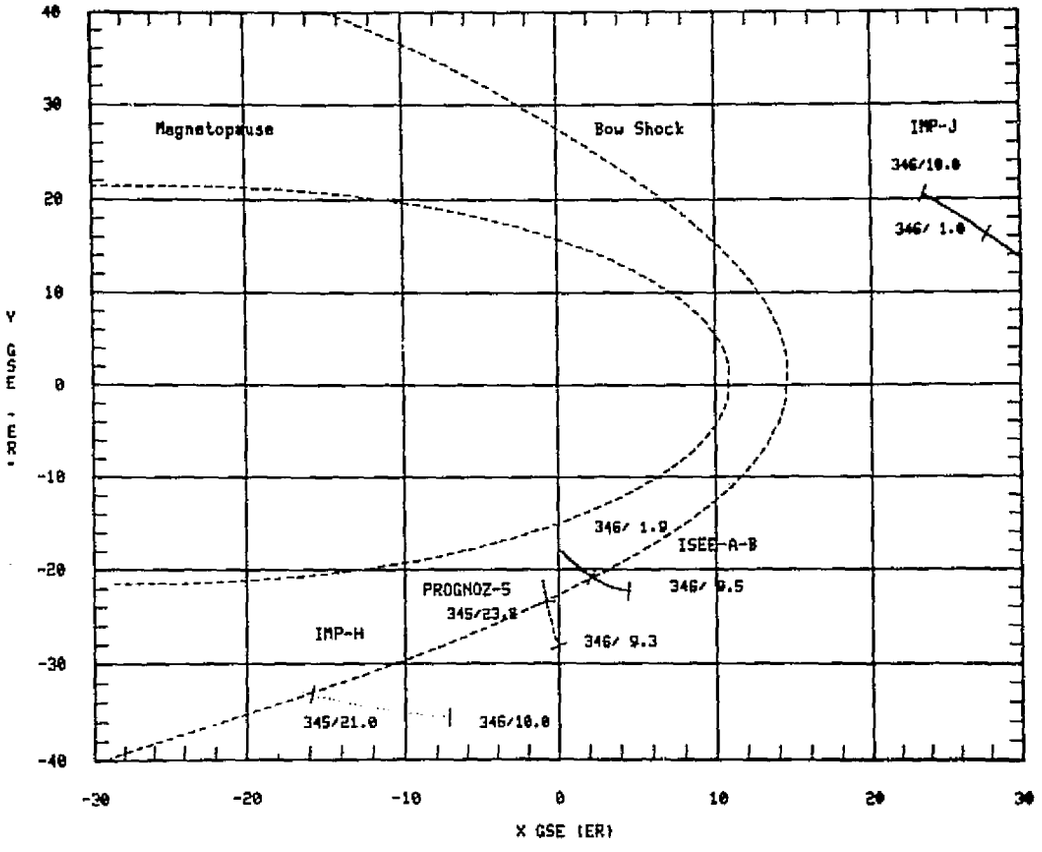
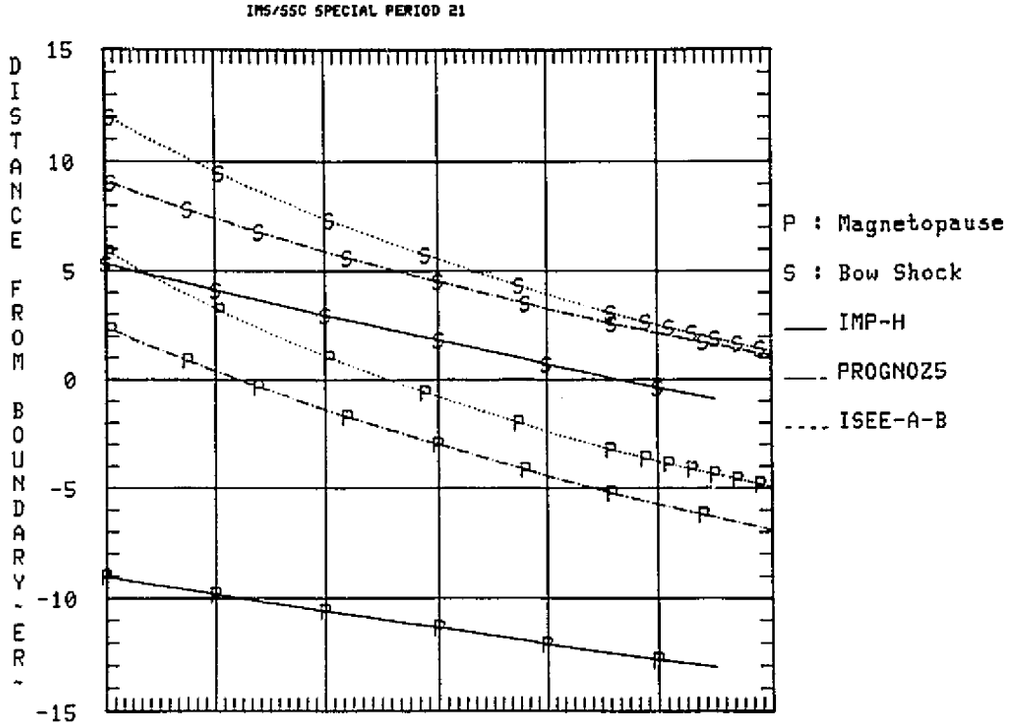


BOUNDARY PLOT

SAT ID: IMP-H PROGNOZ5 ISEE-A-B

IMS/SSC SPECIAL PERIOD 21

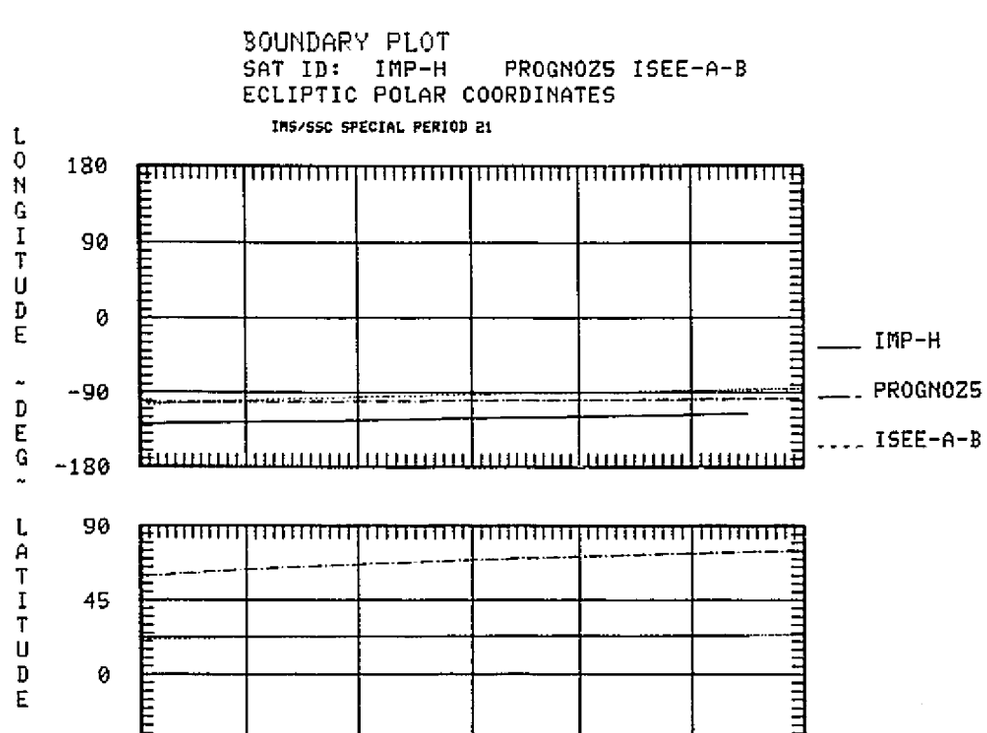


BOUNDARY PLOT

SAT ID: IMP-H PROGNOZ5 ISEE-A-B

ECLIPTIC POLAR COORDINATES

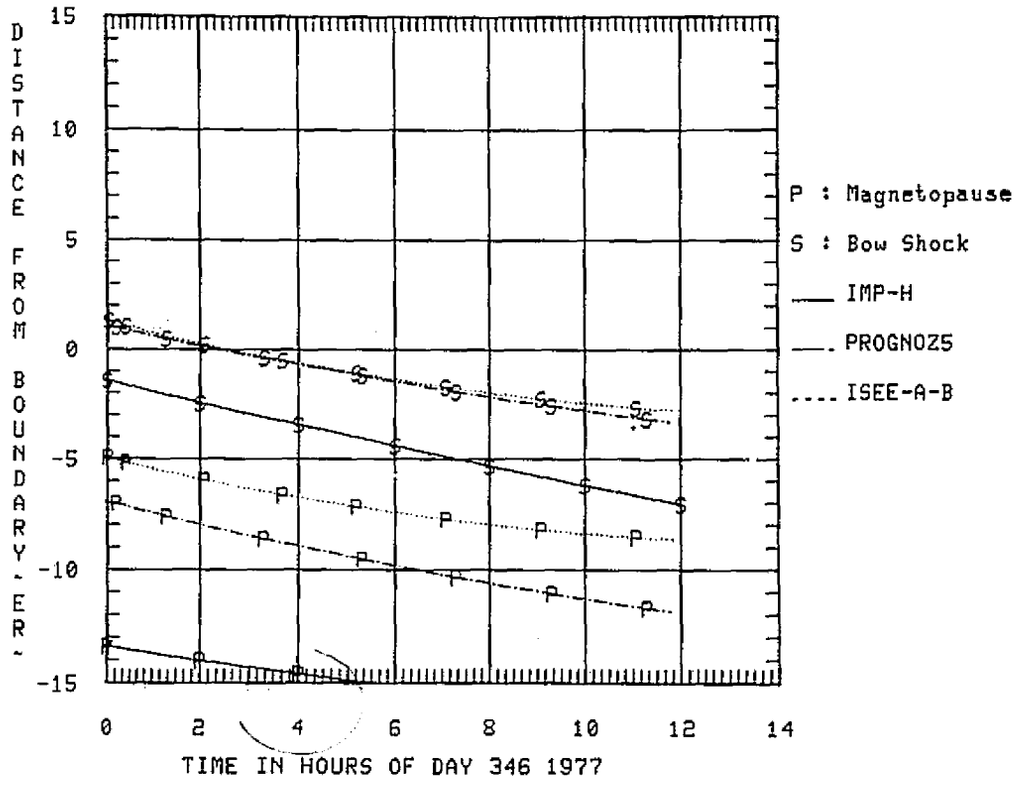
IMS/SSC SPECIAL PERIOD 21



BOUNDARY PLOT

SAT ID: IMP-H PROGNOZ5 ISEE-A-B

IMS/SSC SPECIAL PERIOD 21

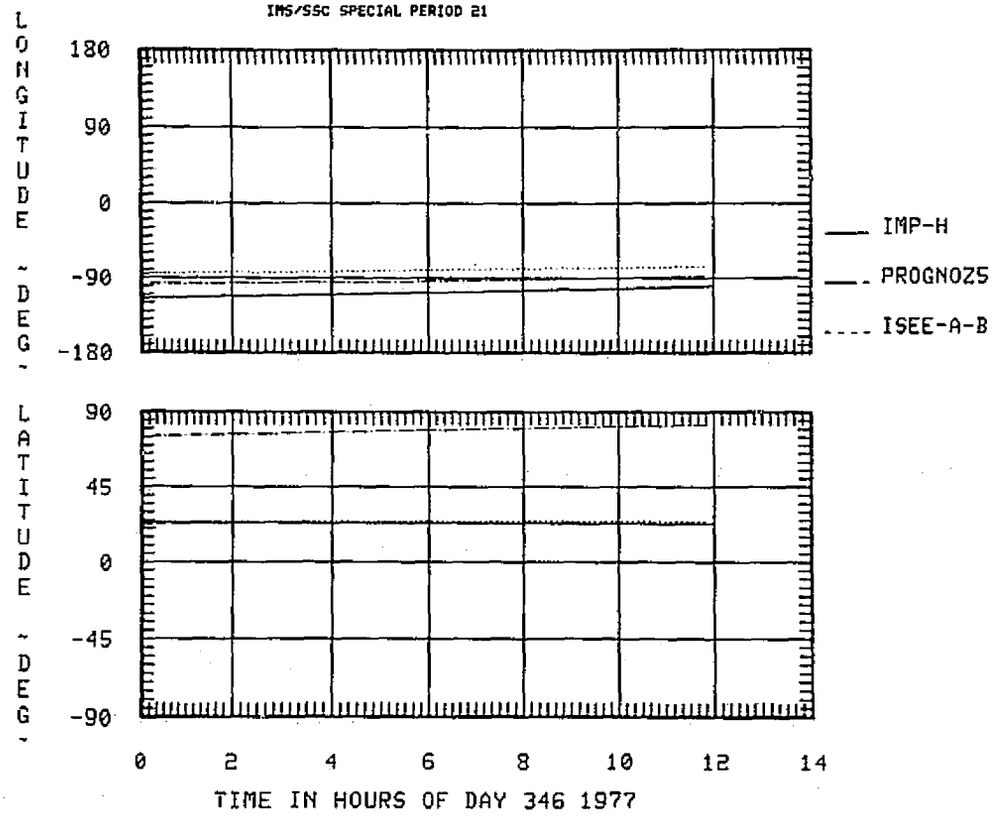


BOUNDARY PLOT

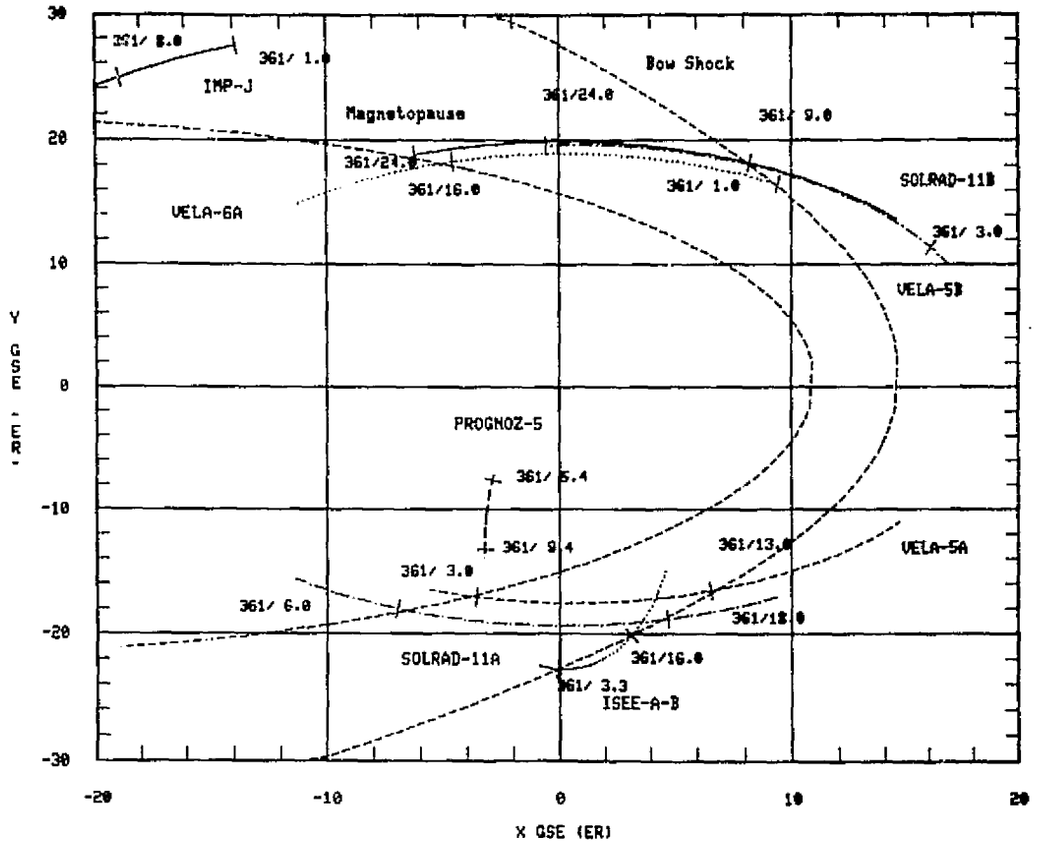
SAT ID: IMP-H PROGNOZ5 ISEE-A-B

ECLIPTIC POLAR COORDINATES

IMS/SSC SPECIAL PERIOD 21

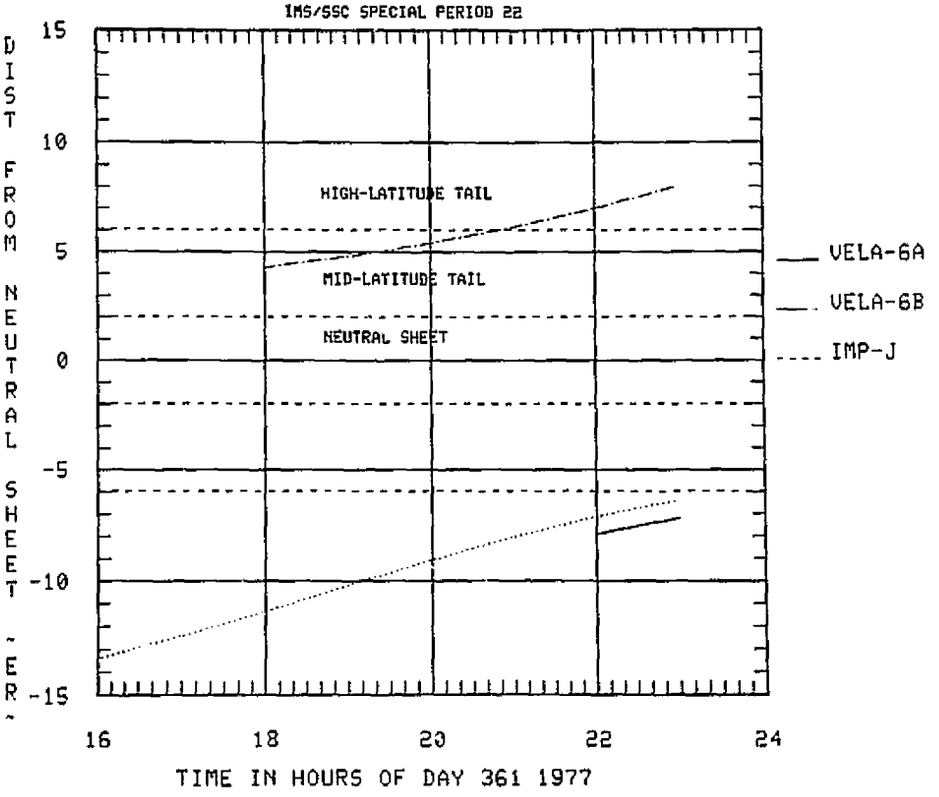


GEOCENTRIC SOLAR ECLIPTIC X-Y PROJECTION

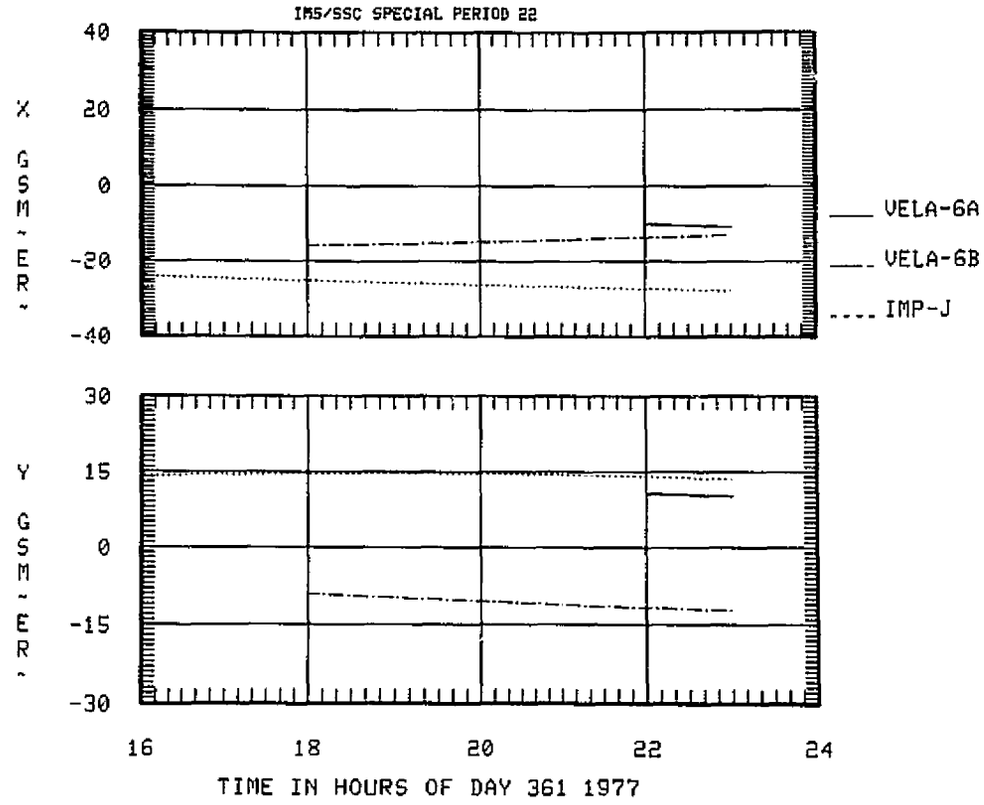


NEUTRAL SHEET PLOT

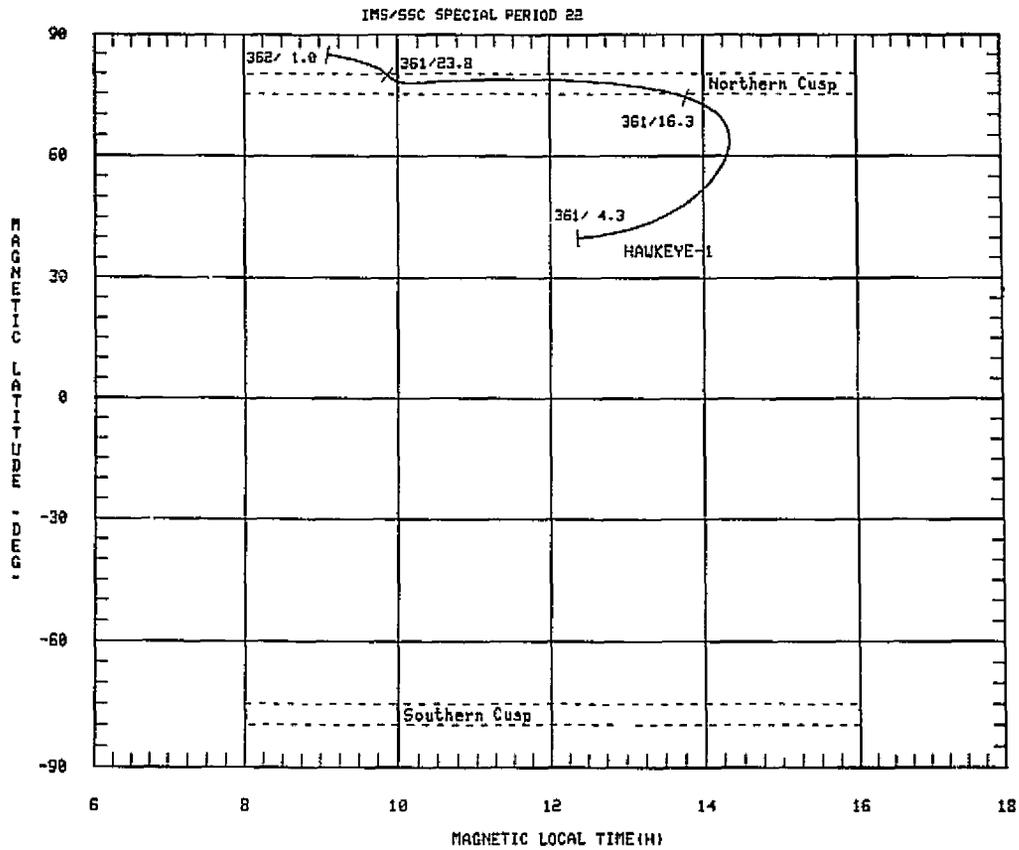
SAT ID: VELA-6A VELA-6B IMP-J



NEUTRAL SHEET PLOT
SAT ID: VELA-6A VELA-6B IMP-J
GSM CARTESIAN COORDINATES

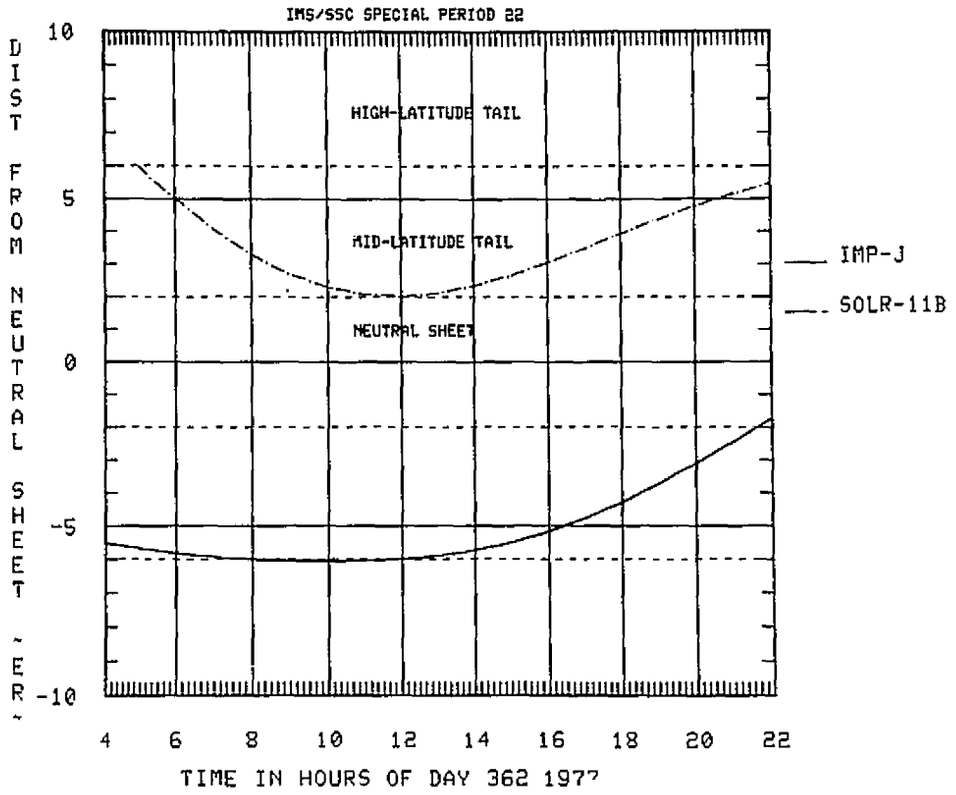


MAGNETIC LATITUDE-MAGNETIC LOCAL TIME PROJECTION

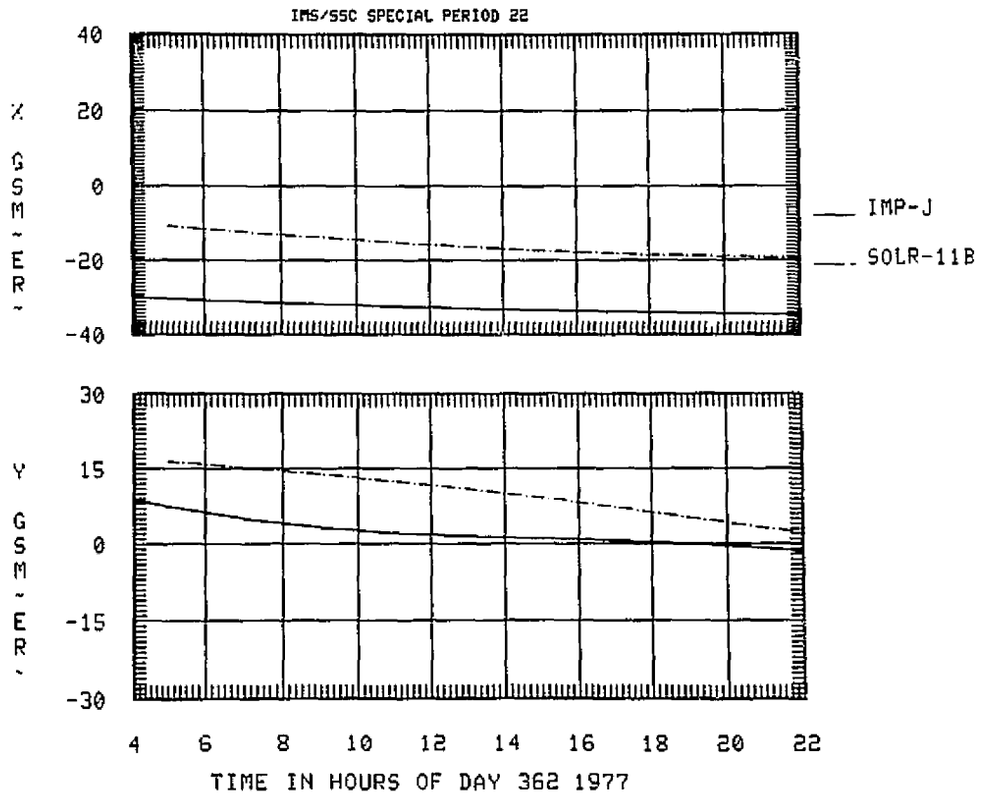


NEUTRAL SHEET PLOT

SAT ID: IMP-J SOLR-11B

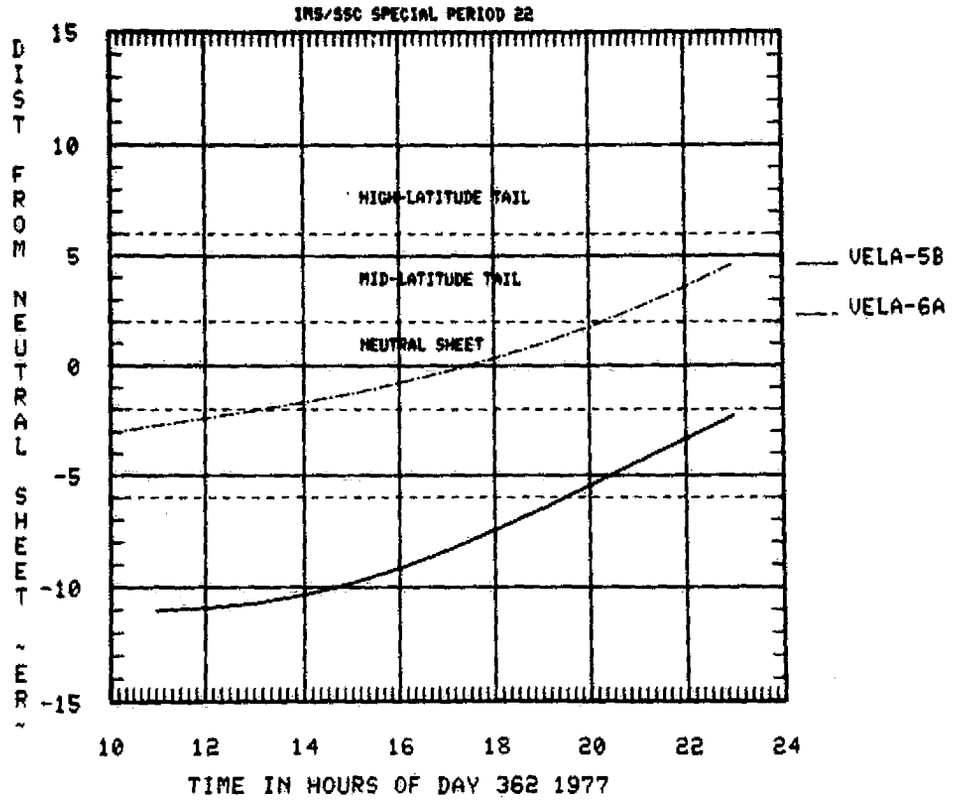


NEUTRAL SHEET PLOT
SAT ID: IMP-J SOLR-11B
GSM CARTESIAN COORDINATES



NEUTRAL SHEET PLOT

SAT ID: VELA-5B VELA-6A



NEUTRAL SHEET PLOT
SAT ID: VELA-5B VELA-6A
GSM CARTESIAN COORDINATES